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**PROCEEDINGS**

**OF THE**

**ZOOLOGICAL SOCIETY**

**OF LONDON.**

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**PART XI.**

**1843.**

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Jan. 1-27	July, 1843
27-31	Oct.
31-74	Nov.
75-100	Dec.
101-112	Jan. 1844
113-127	Feb.

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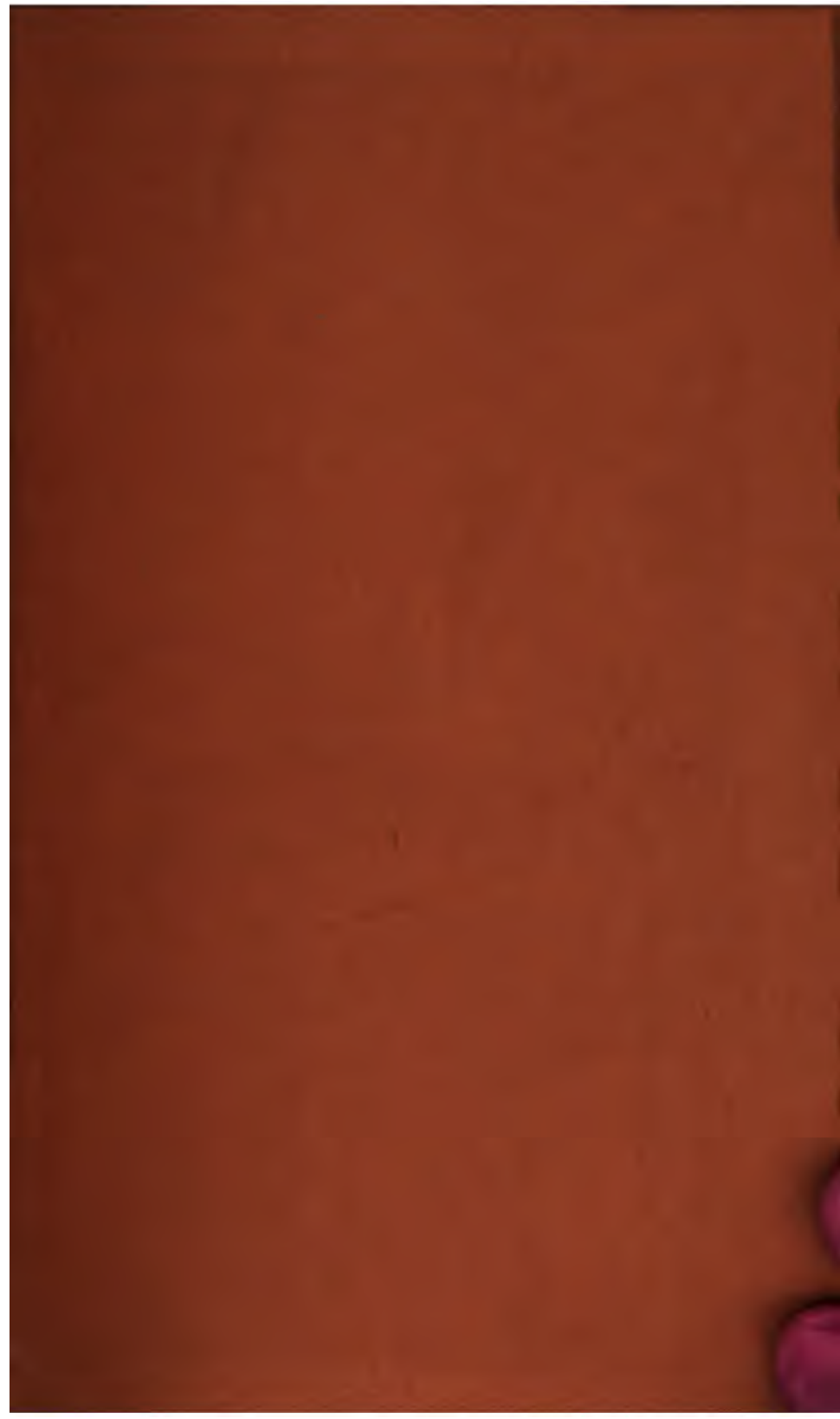
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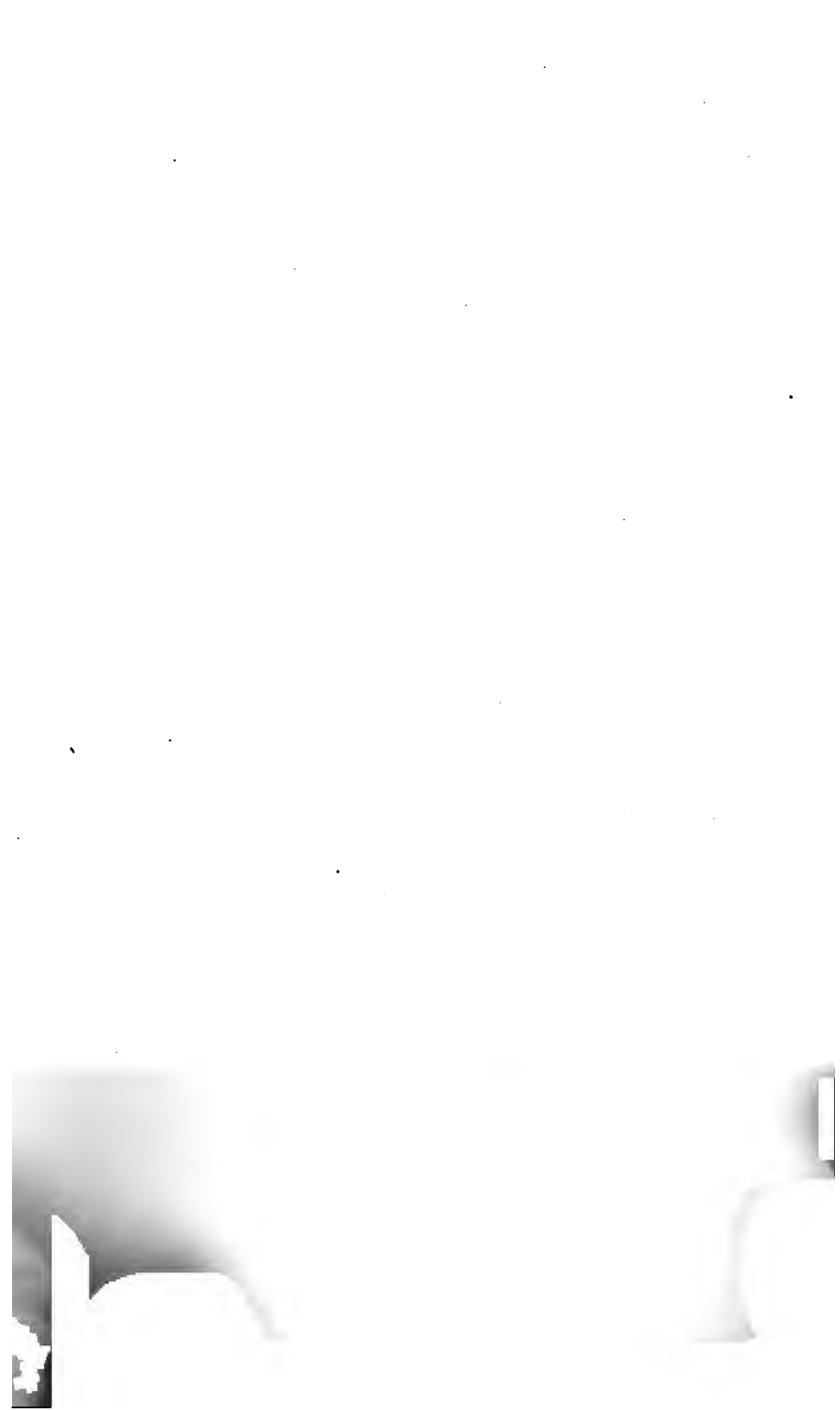
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PROCEEDINGS  
OF THE  
ZOOLOGICAL SOCIETY OF LONDON.

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January 10, 1843.

Richard Owen, Esq., Vice-President, in the Chair.

A portion of a letter from the Rev. W. C. Cotton, addressed to Professor Owen, was read. This letter is dated Waimate, near the Bay of Islands, New Zealand, July 11, 1842, and the portion read refers to the remains of a gigantic bird in New Zealand. The Rev. Mr. Cotton observes, that upon meeting with the Rev. Mr. Wm. Williams, whose missionary station is at the East Cape, Bay of Islands, "I spoke to him about the gigantic New Zealand Bird, of which you described a single bone. Oddly enough, he had a basket full of the bones in the next room, which he immediately showed to me. He has sent two cases of them to Dr. Buckland, together with a long letter, fully detailing the circumstances under which they were found. I have no doubt but that he will ere this have communicated the letter to you, that is, should it have safely arrived. The bones are very perfect, not at all fossilized; and have been buried in the mud of freshwater streams communicating with high mountains. Mr. Williams had bones of thirty different birds brought to him in a short time after he set the natives about searching for them. One of the largest leg-bones, which measures two feet ten inches, and which has been sent to Dr. Buckland, leads him to think that the bird must have been sixteen feet high! A clergyman who came out in the *Tomatia* with us is going to be located in the *Wairoa*, a river about seventy miles south of Poverty Bay, a locality in which these bones have been found in the greatest plenty, and I will commission him to save for me all he can in case you should not have any in the distribution which Dr. Buckland is authorized by Mr. Williams to make. No bones of the wings have been found. The natives have some odd traditions about it, which you will see in the letter. Strangely enough, after Mr. Williams had obtained the bones, he heard of the bird as having been seen by two Englishmen in the Middle Island. They were taken out by a native *at night* to watch for the bird, which he had described to them; they saw it, but were so frightened that they did not dare to shoot at it, though they

had gone out expressly to do so. After this I should not be surprised if the Zoological Society were to send out an army to take the monster alive, for alive he most certainly is in my opinion."

A paper was then read from M. Petit de la Saussaye, in which the author describes the following new species of Shells, placed in his hands for that purpose by Hugh Cuming, Esq. Among these, M. Petit observes, are several which in his opinion form a new little group, possessing well-marked characters, and which might be regarded as a subgenus, for which he proposes the name *Elasmatina*\*.

These shells, which are all terrestrial, form a portion of the great family *Helicidae*, and appear to be confined to certain islands in the Pacific Ocean. They are of small size, transparent and fragile, and their columella is always furnished at least with one tooth, and sometimes with several teeth. The chief characters are thus expressed by the author:—

#### ELASMATINA.

*Testa ovata, seu turrita, fragilis, pellucida; columella uni- vel pluridentata, dentibus lamelliformibus; labrum tenue, acutum.*

**ELASMATINA SUBULATA.** *Elasm. testâ conico-elongatâ, cylindraceâ, pellucidâ, dilatè cornet; anfractibus decennis, convexis, suturâ lineari, impressâ; apice obtuso; apertura obliquè obovatâ; columellâ dente lamelliformi intusque decurrente instructâ; labro tenui, acuto.* Long. 6 mill.; larg. 2 mill.

*Hab.* Island of Opara, Society Islands.

Found by Mr. Cuming in decayed grass.

**ELASMATINA CUMINGIANA.** *Elasm. testâ ovato-conicâ, pyramidatâ, pellucidâ, dilatè corneo-fuscescente; anfractibus 10-11, subplanulatis, ultimo subangulato; apertura semilunari, angustatâ; columellâ duplicatâ; plicâ superiori obsolete lamelliformi; inferiori arcuatâ, lamellosâ; labro tenui, acuto.* Long. 6 mill.; larg. 3½ mill.

*Hab.* Island of Juan Fernandez.

Found by Mr. Cuming on dried herbage.

**ELASMATINA RECLUSIANA.** *Elasm. testâ oblongo-conicâ, pellucidâ, corneo-fuscescente; anfractibus 9-10, planiusculis; apertura semilunari; columellâ basi contorto-plicatâ, plicâ lamellosâ; labro tenui, acuto.* Long. 5 mill.; larg. 2 mill.

*Hab.* Island of Mas afuera, coast of Chili.

Found by Mr. Cuming under moss in damp situations.

**ELASMATINA GLOBOSA.** *Elasm. testâ ventricosâ-conicâ, pellucidâ, luteo-virescente; anfractibus 6-7, planiusculis, ultimo maximo, ventricosâ, pallidiore; spirâ conico-âcutâ; apertura semilunari, ringente; columellâ suprâ medium dente lamelliformi instructâ,*

\* From *ἑλσμά, lamella*.

*dente subtile marginato, interdum duplicato, ad basim plicato, plicâ anticâ emarginatâ robustè bilobato, lobo superiori ascendente, inferiori subhorizontali; labro acuto. Long. 4 mill.; larg. 3 mill.*

*Hab.* Island of Opara.

Found by Mr. Cuming under stones.

M. Petit also describes a new shell belonging to the genus *Scarabus* :—

**SCARABUS CUMINGIANUS.** *Scar. testâ ovato-acutâ, utroque latere compressiusculâ, sordidè fuscescente, longitudinaliter rugoso-striatâ, umbilicatâ; anfractibus novenis, planis; spirâ conicâ, lateraliter interdum castaneo-maculatâ; aperturâ longitudinali, margaritaced, nitente; columellâ tridentatâ, dente superiori longitudinali, anticâ truncato, dente mediano crasso, basi obsoletè trilobato, inferiori transversa, lamelliformi; labro crasso, superne intus valdè sinuato, quinque dentibus instructo; umbilico intus clauso. Long. 29 mill.; larg. 20 mill.*

Found by Mr. Cuming at Boljoon (island of Zebu), and at Tanhay, island of Negros.

Mr. Fraser laid before the Meeting some new species of Birds from Fernando Po, which he characterized as follows :—

**SYLVICOLA SUPERCILIARIS.** *Sylv. ♂ corpore superiore, et lateribus nitidè olivaceis; mento, gula, et abdomine medio sordidè albis; lined a naribus super oculos, lined suboculari, plumis auricularibus, humerorum margine, femoribus, crurisque splendide flavis; spatio inter oculos rictumque fusco; rostro nigro, pedibus carneis.*

Long. tot. 4 poll.; rostri,  $\frac{5}{8}$ ; alæ, 2; caudæ,  $1\frac{1}{2}$ ; tarsi,  $\frac{3}{4}$ .

*Hab.* Clarence, Fernando Po.

The whole of the upper surface and sides of the body, in this bird, are of a bright olive colour; the chin, throat and centre of abdomen are dirty white; a yellow line runs from the nostril over the eye, and there is a mark under the eye of the same colour; the ears, edge of shoulders, thighs and under tail-coverts are also bright yellow; the space between the eye and the gape is brown; the bill is black and the legs are flesh-colour.

**BUCCO SUBSULPHUREUS.** *Buc. ♂ corpore superiore nigro, strigâ superciliari, necnon lined frontali sub oculos, et per genas tendente, sulphureis; spatio strigis incluso nigro; corpore inferiore, alarum caudæque tectricibus, secundariis, sic et caudâ flavo-marginatis; alarum tectricibus inferioribus flavido-albis; iridibus corylaceis; rostro nigro, pedibus saturatè plumbeis.*

Long. tot.  $3\frac{1}{2}$  poll.; rostri,  $\frac{3}{4}$ ; alæ, 2; caudæ,  $1\frac{1}{2}$ ; tarsi,  $\frac{1}{2}$ .

*Hab.* Clarence, Fernando Po.

The upper surface of the head and body is black; superciliary stripe and one across the forehead, which passes under the eye and along the cheek, and the whole of the under surface, sulphureous; space between the superciliary and cheek stripes black; upper wing

and tail-coverts, secondaries and tail, margined with yellow; under wing-coverts yellowish white; irides hazel; bill black; legs deep lead-colour.

This bird is like a *Nuthatch* in its habits, being capable of not only running up the trunk of a tree with great agility, but of descending also, head downwards, with equal or even more facility, an act which the *Woodpecker* is, I believe, unable to perform. The tail is short and very soft, and is not used in climbing. Like our European *Sitta*, the downward position seems the most easy and natural. Of the difference of sexes, if any, I am unable to speak, but I have reason to believe the young of this genus differ considerably from the adult\*. The *Buccos* are stupid and inactive; I have shot three or four from the same tree, one after the other, without disturbing the rest.

MUSCIPETA (TCHITREA, LESS.) TRICOLOR. *Musc.* ♀ *cristâ, et mento nitidè nigris; corpore superiore cinereo; inferiore rufo, rostro pedibusque pallidè cæruleis; caudâ — ?*

Long. tot. — ? poll.; rostri,  $1\frac{3}{8}$ ; alæ,  $3\frac{1}{4}$ ; caudæ, — ?; tarsi,  $\frac{4}{8}$ .

Hab. Clarence, Fernando Po (June); in deep moult.

HALCYON LEUCOGASTER. *Halc.* ♂ *vertice nigro, et cæruleo alternatim fasciato, notâ grandi rufo ab utraq. nari oriente et mandibulæ inferioris basim circumdante, necnon aures, et capitis latera, exinde super oculos tendente, et per latera colli corporisque sic et alarum tectrices ductâ; dorso splendidè cæruleo, quo colore tectrices alarum marginatæ, alæ, caudaque lavatæ sunt, guld, pectore et abdomine in medio albis; rostro pedibusque rubris.*

Long. tot.  $5\frac{1}{2}$  poll.; rostri,  $1\frac{1}{2}$ ; alæ,  $2\frac{1}{4}$ ; caudæ,  $1\frac{1}{4}$ ; tarsi,  $\frac{4}{8}$ .

Hab. Clarence, Fernando Po.

Crown of the head alternately banded with blue and black; from each nostril commences a large patch of rufous, which envelopes the base of the lower mandible, ears, and sides of the head, forms a broad stripe over the eye, and extends along the sides of the neck and body, and also over the under wing-coverts; the back is ultramarine blue; the upper wing-coverts are tipped, and the wings and tail glossed with the same hue; the throat and the centre of the chest and abdomen are white; bill and feet red.

\* I have in my collection young specimens of a species of *Bucco*, nearly allied to the above, and in which the body is much spotted and barred, as we so frequently find it in young birds, and wants the decided colouring characteristic of the adults of the present genus. These young birds I feel no doubt constitute a new species, but with such imperfect materials I do not think it desirable to impose a name. The plumage is very soft and loose; the upper parts of the body are of a blackish colour; the crown of the head is adorned with numerous small yellow spots, and the feathers of the back and rump are margined with yellow, giving a barred appearance to these parts; the wing-coverts are narrowly edged with dirty yellow; the under parts of the body are pale inclining to white, but as it were irregularly washed with yellow; the beak is horn-coloured, and the feet are black. These young birds were shot on naked isolated trees.



This beautiful species is very closely allied to the *Halcyon cyanotis*, Sw., but may at once be distinguished by the centre of the abdomen being white, which circumstance suggested the name. It is a shy bird.

Mr. Lovell Reeve then communicated a paper by Sylvanus Hanley, Esq., in which the author describes, subjoined, five new species of shells belonging to the genus *Donax*, a group of Acephalous Mollusks.

**DONAX SEMISULCATA.** *Don. testâ abbreviato-cuneiformi, totâ albidolutescente, nitidâ, posticè attenuatâ, lævigatâ, margine dorsali valdè declivi; anticè brevissimâ, truncatâ, transversim sulcatâ et longitudinaliter striatâ; margine anteriore subrecto; vulvâ decussatâ, lateribus subangulatâ; intùs margine crenulatâ.*

Long.  $\frac{3}{4}$  poll.; lat.  $\frac{1}{2}$  poll.

*Hab.* —? Mus. Stainforth, Metcalfe, Hanley, &c.

A very distinctly characterized shell, which bears little resemblance to any other species of this genus, with the exception of the *straminea* of Schröetter. That rare and almost forgotten shell differs from ours in the following particulars. The shape is altogether more rounded, the ventral edge less arcuated, the edges of the anterior slope rounded, and its transverse striæ obsolete. Moreover the posterior margin is entire.

**DONAX PUNCTATO-STRIATA.** *Don. testâ subtriangulari, valdè convexâ, pallidè livido-fusca, radiatim punctato-striatâ, margine dorsali utrinque valdè declivi, ventrali medio arcuato; vulvâ longitudinaliter argutè striatâ, lateribus obtusis; intùs purpureâ, marginibus dentatis; dentibus lateralibus in utràque valvulâ duobus.*

Long.  $\frac{3}{4}$  poll.; lat.  $1\frac{1}{4}$  poll.

*Hab.* —? Mus. Stainforth, Metcalfe, Hanley, &c.

Combining the outline of the *striata* of Linnæus (not Chemnitz) with the dotted striæ of *denticulata*, this shell may nevertheless be easily distinguished from either by the obtuse edge of its anterior slope. The inner margin is strongly dentated, excepting at the anterior slope, where it is finely crenulated. I believe that it is found on the shores of China, but will not venture to assign it *that* or any other locality.

**DONAX CARINATA.** *Don. testâ elongato-cuneiformi, anticè acuminatâ, convexâ, purpureo-fusca, striis longitudinalibus magis minusve distinctis ornatâ (sæpè politâ, radiisque saturatioribus obsoletè depictâ); vulvâ obliquè truncatâ, lateribus carinatâ, fere planulatâ, striisque subgranulatis radiatâ; intùs purpureâ, dentibus lateralibus in utràque valvulâ duobus, marginibus crenatis.*

Long.  $\frac{3}{4}$  poll.; lat.  $1\frac{1}{4}$  poll.

*Hab.* —? Mus. Stainforth, Metcalfe.

A species peculiarly characterized by the very sharp and subrostrated angle formed by the ventral edge with the nearly straight edge of the depressed and sharply carinated anterior slope. In the majority of specimens the striæ have become obsolete and the shell

brilliantly polished. The general outline bears some little resemblance to that of the true *trunculus* of Linnæus, a very different shell from that erroneously but universally so designated by those who have written on British conchology.

**DONAX DENTIFERA.** *Don. testâ abbreviato-subtriangulari, posticè rotundatâ, anticè obtusâ et tumidâ, rugis tenuissimis strias longitudinalinales anticè decussantibus; vulvâ subbiangulatâ, striis tenuibus subgranulatis radiatâ, sulcoque dentifero notatâ; margine ventrali vix arcuato; dentibus cardinalibus et lateralibus in utraq. valvâ duobus; intus marginibus crenatis.*

Long.  $1\frac{1}{2}$  poll.; lat.  $1\frac{3}{8}$  poll.

*Hab.* —?

The abbreviated shape of this remarkable shell would alone separate it from most of the *Donaces* possessing a crenulated margin. The extraordinary tooth at the extremity of the radiating groove in one valve, which fits into a corresponding notch at the extremity of that of the other, is however its more prominent characteristic. A few teeth show themselves likewise at the extremity of the longitudinal elevated striæ which margin the anterior slope.

The colouring is extremely variable, being uniform flesh-colour, olive-yellow, with the umbones violet, or even white. The interior rivals the exterior in the diversity of its tints.

**DONAX PULGHELLA.** *Don. testâ transversim elongatâ, convexâ, pellucidâ, politâ, posticè attenuatâ, productâ, anticè brevi; obtusâ, margine ligamentali valdè convexâ; albidd, striis longitudinalibus obsoletis anticèque radiis purpureis angustis tribus ornatâ; vulvâ lateribus rotundatâ, striisque tenuibus radiatâ; margine ventrali subrectâ, intus crenulatâ; dentibus lateralibus valdè approximatis.*

Long.  $\frac{1}{2}$  poll.; lat.  $\frac{1}{3}$  poll.

*Hab.* West Indies.

An exceedingly common species from the West Indies, which, from its apparent similarity with the *scalpellum* of Gray, has hitherto remained uncharacterized. Its peculiarly transverse shape, its breadth being considerably more than twice its length, sufficiently distinguishes it from any of the named species of this genus, with the exception of the *Owenii* and *scalpellum*, from which it is separated by its greater convexity and its distinctive colouring.

Mr. Hanley also describes a new species of *MYA* of Linnæus and Lamarck:—

**MYA SEMISTRIATA.** *Mya testâ ovato-oblongâ, subæquilaterali, ventricosâ, posticè rotundatâ, anticè subtruncatâ et attenuatâ, candidâ, tenui, pellucidâ, longitudinaliter striatâ; striis tenuibus, confertis, anticè elevatis; areâ posticâ striarum experte, transversim rugosâ; dente cardinali obliquo.*

Long.  $\frac{3}{4}$  poll.; lat. 1 poll.

*Hab.* —? Mus. Metcalfe.

A single valve, in the cabinet of W. Metcalfe, Esq., is the sole specimen of this elegant and distinct shell I have ever beheld, and

forms a welcome addition to a genus possessing so few species as that of *Mya*. Its distinct radiating striæ occupying all but the posterior surface (which is roughened by concentric sublamellar wrinkles), prevent the possibility of its being confounded with any other species, except the *cancellata* of Conrad. But the coarse transverse wrinkles which cover the entire surface of that shell are totally wanting in ours, whilst its radiating striæ are few, indistinct, and by no means its prominent characteristic.

The anterior attenuation is caused by the sloping upwards of the ventral edge. The tooth closely resembles that of *arenaria*, but is more oblique;

January 24, 1843.

William Yarrell, Esq., Vice-President, in the Chair.

Professor Owen exhibited various bones, being the remains of a gigantic Struthious Bird (*Dinornis Nova-Zelandiae*, Owen) which has become extinct in the North Island of New Zealand, and proceeded to read his notes relating to them.

" Since the communication to the Zoological Society, Jan. 10th, 1843, of the letter of the Rev. Mr. Cotton, relative to the remains of the gigantic bird of New Zealand which had been collected in the North Island by the Rev. Wm. Williams, one of the boxes of these remains, transmitted by that gentleman to Prof. Buckland, has been received, and the specimens have been kindly placed in my hands for description.

" An entire femur, somewhat larger than that of which the shaft is described and figured in the Society's Transactions, proves the specific identity of the present remains with the fragment, upon which I ventured to affirm, three years ago\*, that a large Struthious Bird 'of a heavier and more sluggish species than the Ostrich' had recently become extinct, if it were not still living, in New Zealand.

" The femur has very nearly the same proportions of thickness to length as in the Ostrich, but the shaft is less compressed; it consequently differs from that of the Apteryx in being shorter in proportion to its thickness; but it resembles the femur of the Apteryx, and differs from that of the Ostrich and Emeu in the important character of the absence of the air-hole at the back part of the neck, and the consequent substitution of marrow for air in the interior of the bone. It differs from the femur of the Ostrich, and agrees with that of the Apteryx, in the greater width of the anterior interspace of the condyles; but it differs from that of the Apteryx, not only in size and general proportions, but also in the form of the distal extremity, which has a deeper posterior intercondyloid depression, and a sharper and more produced posterior part of the outer condyle.

" The length of the above femur of the great bird of New Zealand is eleven inches; the circumference of the middle of the shaft five and a half inches: but the present collection includes the shaft of a femur of another individual, with a circumference of seven and a half inches.

" The most perfect tibia in the present collection measures two feet four and a half inches in length, and apparently corresponds in proportion with the fragment of the larger femur. Now allowing that femur fourteen inches of entire length, the tibia is then twice the

\* The memoir was communicated to the Zoological Society November 12th, 1839, vol. iii. p. 32. pl. 3.

length of the femur, while in the *Apteryx* the tibia is only one-third longer than the femur. The larger *Struthionidæ*, as the Ostrich and Emeu, more nearly resemble the great New Zealand Bird in the proportion of their tibia, but it is not quite twice the length of the femur in those species. The tibia of the great New Zealand Bird differs from that of the *Apteryx* and all the large *Struthionidæ* in the complete osseous canal for the passage of an extensor tendon in the anterior concavity above the distal condyles. This osseous canal is commonly found in the tibia of the *Grallæ*, *Gallinæ*, *Anseres*, and many smaller birds. The proportion of length to thickness of the tibia is nearly the same in the Ostrich and the great New Zealand Bird; the circumference of the tibia at its proximal end, in the latter, is fifteen inches; at its middle, five inches.

"The most instructive bone in the present collection is a tarso-metatarsal bone, with the distal extremity entire, showing that the gigantic bird was tridactyle, like the Emeu, Rhea, and Cassowary. The remains of the proximal end of the bone prove it to have been articulated with a tibia about an eighth part shorter than the one above described, or to a tibia about two feet in length; the length of the tarso-metatarsal bone is one foot, or half the length of the tibia, which is exactly the proportion which the tarso-metatarsal bone of the *Apteryx* bears to the tibia. In the Emeu the tarso-metatarsal bone is as large as the tibia; in the Ostrich it is a little shorter than the tibia. The difference in the proportions of the tarso-metatarsal bone of the gigantic bird of New Zealand and of the Emeu will be obvious from the following dimensions:—

Tarso-metatarsal bone.	<i>Dinornis.</i>		<i>Dromaius.</i>	
	in.	lin.	in.	lin.
Length, .....	12	0	14	6
Circumference of middle .....	4	5	2	8
Breadth of distal end .....	3	10	2	10

"The comparative shortness and strength of the tridactyl metatarsal of the gigantic New Zealand Bird form its most striking resemblance to the *Apteryx*, to which it thus approximates more closely than to any of the large existing *Struthionidæ*.

"The proportions of the leg-bones, their denser texture, especially that of the femur, which, as in the *Apteryx*, contains no air, sufficiently indicate the generic distinction of the great New Zealand Bird from the tridactyle Emeu, Rhea, or Cassowary. The questions then arise,—is it likewise generically distinct from the *Apteryx*? or is it a gigantic species of that genus? These questions are determined by the tarso-metatarsal bone. The *Apteryx* is distinguished from the other *Struthionidæ* not more by its elongated bill than by the presence of a fourth small toe on the inner and back part of the foot, articulated to a slightly elevated rough surface of the tarso-metatarsal about a fourth of the length of that bone from its tridactyl distal end. There is no trace of this articular surface on the tarso-metatarsal of the Gigantic Bird, which was consequently tridactyle, as in the Emeu, Rhea, and Cassowary. The Dodo was tetradactyle, like the *Apteryx*;

the shorter proportions of the legs of the Dodo also distinguish it from the Gigantic Bird, whose career in the North Island of New Zealand was probably closed about the same period as that of the Dodo's existence in the Isle of Rodriguez,

"The fragments of the pelvis prove this to have been relatively broader, behind the acetabula, than in the Ostrich, Emu, or Apteryx, its proportions being more like those of the Bustard,

"The results of the foregoing comparisons justify the reference of the Great Bird of New Zealand to a distinct genus in the Struthious order, for which I propose the name *Dinornis*, with the specific appellation *Nova Zealandia*,

"The extraordinary size of the tibia above described—still more that of the tibia said to measure two feet ten inches in length, obtained by Mr. W. Williams, and mentioned in his letter to Dr. Buckland—prove the *Dinornis* of New Zealand to be the most gigantic of known birds. There is little probability that it will ever be found, whether living or extinct, in any other part of the world than the islands of New Zealand, or parts adjacent. At all events, the *Dinornis Nova Zealandia* will always remain one of the most extraordinary of the zoological facts in the history of those islands; and it may not be saying too much to characterize it as one of the most remarkable acquisitions to Zoology in general which the present century has produced."

Mr. Ogilby then communicated his descriptions of two new species of Baboon:—

"When at Frankfort in the year 1837 I saw in the museum of that city two Baboons of the genus *Cynocephalus*, which my friend Dr. Rüppell had brought from Abyssinia. They were however confounded with the 'Babouin' of the French authors (*C. sphinx*), under which name they are noticed in the 'Neue Wirbelthiere'; and though I was too well acquainted with that species, from having frequently seen an individual then living in the Surrey Zoological Gardens, to fall into the same error, I yet committed the similar mistake of confounding the Frankfort animals with *C. anubis*, of which there was no specimen at hand to compare them with. Since that time I have had frequent opportunities of observing the latter species, which is an inhabitant of the coast of Guinea, and not uncommon in our museums and menageries; but it is only within the last few days that the acquisition of a fine adult male specimen of Dr. Rüppell's animal by the Zoological Society has enabled me to compare them together, and to ascertain their specific distinction. Both species are now living in the Society's Gardens, and offer a rare and valuable opportunity for studying their characters.

"The Abyssinian species, which was reported to have been brought from Bombay, but which had no doubt been carried thither on board some vessel trading to the Red Sea, possesses a higher degree of interest than attaches to any other *Cynocephal*. With the exception of *C. hamadryas*, it is the only known species in that part of Africa, and must consequently have been the animal which we find

so frequently figured among the hieroglyphics, and which was worshipped by the Egyptians under the name of *Thoth*. I have shown elsewhere (Nat. Hist. of Monkeys, &c., i. 431) that the Sacred Baboon of the Egyptians was not the *C. hamadryas*, as supposed by Ehrenberg; and though, from the mistake above alluded to, I was at that time inclined to identify it with *C. anubis*, there can now be no reasonable doubt that the animal which played so important a part in the mythology of that remarkable people, and of whose worship the city of Hermopolis was the principal seat, must have been the species at present under consideration. If this conjecture be well-founded, it follows also that the names *cynocephalus*, *sphinx*, &c., so often employed by Greek and Roman writers, must have referred to the same animal, at least originally; but as modern zoologists have applied all these names in a definite sense, I propose to distinguish the new species by the equally appropriate designation which it bore among the ancient Egyptians.

*"Cynocephalus Thoth.*—The individual from which this description was taken is an old male of large size, and, like the rest of his congeners, of a morose intractable disposition. The face is broad and of a dirty livid flesh-colour, lighter along the centre and ridge of the nose, and somewhat browner on the cheeks and muzzle; the cheek-bones are protuberant, the rostrum truncated, and the extremity of the nose reaching, but not surpassing, the plane of the upper lip and teeth. The hair of the fore-quarters is longer and thicker than on the rest of the body, though it does not form so dense or copious a mane as in *C. hamadryas*. The colour of the upper and outer parts of the body may be described as dark olive-green, and that of the lower and interior as light yellowish green; the breast, throat and under part of the chin are silvery grey; the lower parts of the whiskers are of the same colour, but they acquire a yellowish green shade as they approach and become intermixed with the hair of the head; the ears and palms of the hands are naked, and of a dark brown colour; the callosities very large and flesh-coloured, and the naked parts of the hips on each side of the callosities of a deep purple or violet-brown; the scrotum is brown, and the sheath of the penis flesh-coloured. The tail is of medium length, without a terminal tuft, and carried in the arched manner common to the rest of the genus. The hind surfaces of the legs and thighs are furnished with long hair of a yellowish brown shade; the hands are of the same colour as the body, but the hind fingers are covered with longish grey hairs, and this character, together with the dark purple colour of the naked hips and brown scrotum, will always be sufficient to distinguish the present species from *C. anubis* and *C. sphinx*, in both of which the naked parts of the buttocks are of a brilliant blood-red, and the scrotum pale flesh-colour. In colour indeed *C. Thoth* approaches more nearly to *C. sphinx* than to *C. anubis*; it has the same light silvery grey colour on the whiskers and under part of the body, but the upper colours are more obscure; the bright yellowish green is replaced by sordid dunnish brown, and the proportions of the two animals are entirely different, the long slender limbs and body of the

*sphinx* contrasting strongly with the massive thick-set form of the present species.

"There is likewise in the Society's Gardens a second undescribed species of *Cynocephal*, of which I remember to have formerly seen a specimen in Wombwell's collection, but unfortunately neglected to take a note of it at the time. The individual which I am now about to describe was brought from the Niger Expedition, and presented to the Society by Lieutenant Webb, R.N. It is a semiadult male, of medium size, covered on every part of the body, both above and below, with long shaggy hair of a deep russet-brown colour, each hair being annulated with rusty-brown and black rings; and I may remark, that this and *C. anubis* are the only species in which I have observed that the hair of the breast and belly are similarly annulated, and almost as thickly furnished as that on the back and sides; the whiskers are likewise bushy, of the same colour as the hair of the back, and similarly annulated; but it should be observed, that from the very dark shade of the colours the annuli are but little conspicuous anywhere. The face is more slender and tapering than in any other male *Cynocephal* that I have ever seen; the cheek-bones are but little prominent, but the nose sensibly surpasses the extremity of the muzzle. The face and space surrounding the eyes are black or dark brown, the upper eyelids alone flesh-coloured; the ears and palms of the hands, as are likewise the upper sides of the fingers, the scrotum, callosities, and naked parts of the buttocks, are of the same colour. The hair of the head, whiskers and fore-parts generally is erect and bushy, and completely conceals the ears. This species is allied to *C. anubis*, but differs from it in the colour of the hair, in the absence of the light flesh-coloured circle about the eyes, and in the dark brown instead of blood-red colour of the callosities and naked parts of the buttocks. I propose to distinguish it by the name of *C. choras*, a name which is applied to this or some other species of Baboon on the west coast of Africa, and which has a sufficiently classical form to escape the censure of barbarism, notwithstanding its origin."

Descriptions of four new species of *Conus*, a genus of Pectinibranchiate Mollusks, by Mr. Lovell Reeve, were then read.

1. *CONUS STAINFORTHII*. *Con. testâ conico-turbinatâ, leviter flexuosa, albida, rubro purpureoque tinctâ, ad basin rosacea; granosa, granis minutis, rubido carneove-albis, in seriebus equidistantibus parallelis transversaliter dispositis; spirâ mediocriter convexâ, tuberculis aspersis regulariter coronatâ; apice mucronato, symmetricè acuto; aperturâ subinflatâ, labro solidiusculo, intus extusque albo.*

Conch. Icon. pl. 1. f. 1.

The richly variegated purple painting of this new and very beautiful shell (which I dedicate to its fortunate possessor), and the rows of light small granular pimples standing out in relief, render it eminently characteristic. There is another specimen in Mr. Cumming's collection.

*Hab.* Unknown.



2. *CONUS LIGNARIUS*. *Con. testâ oblongo-turbinatâ, luteo-fuscd, fusco indistinctè bifasciatâ, longitudinaliter subtilissimè striatâ, filis tenuissimis rubellis densissimè cingulatâ; basi striatâ; spirâ planiusculâ, apice elato, acuto.*

Conch. Icon. pl. 15.

This shell, which is of an uniform brown colour, profusely corded and lined, both transversely and longitudinally, was found by Mr. Cuming on mud-banks just below low-water mark at Port Sacloban, Island of Leyte, Philippines.

3. *CONUS MAGNIFICUS*. *Con. testâ cylindraceo-turbinatâ, obesâ, anfractibus supernè rotundatis, spirâ lævi, subacuminatâ, apice valdè obtuso; rosaced, lineis ovato-trigonis, lacco aut purpureo-rubris, usquequaque reticulatâ, maculis perpaucis grandissimis bifasciatim cinctâ.*

Conch. Icon. pl. 6. f. 32.

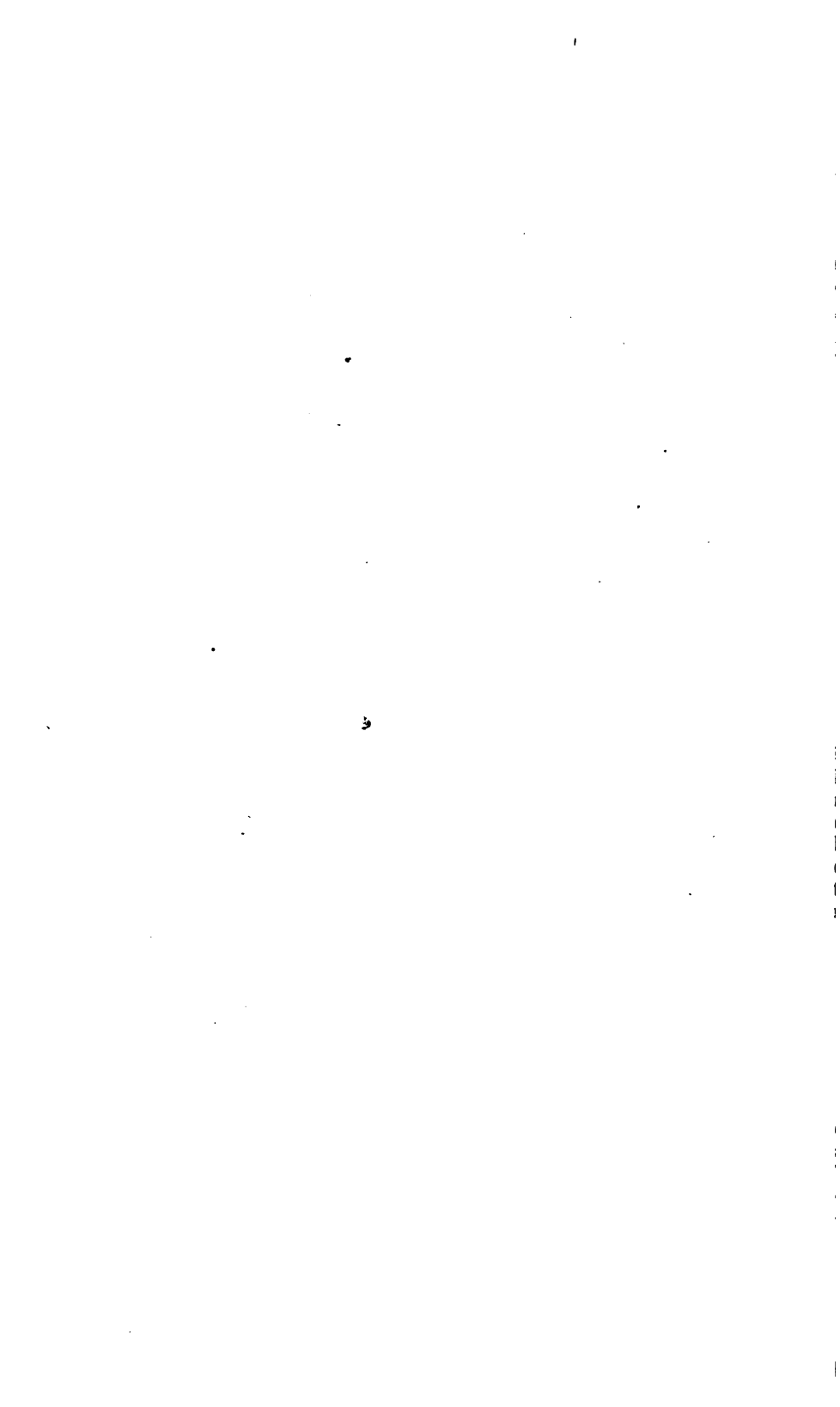
This beautiful shell, which always exhibits a warm rosaceous tint, was collected by Mr. Cuming at Matnog, Island of Luçon, Philippines.

4. *CONUS NEPTUNUS*. *Con. testâ elongato-conicâ, spirâ acuminatâ, striatâ, apice acuto; pallidè carneolâ, lineis maculisque rubidis ubique nebulosâ et venosâ; versus basin leviter sulcatâ, sulcis subdistantibus; columellâ et aperturæ fauce subrosaced.*

Conch. Icon. pl. 6. f. 30.

*Hab.* Jacna, Island of Bohol.

The delicate marking of this gem approaches so nearly to that of the *Conus gloria-maris*, that we honour it with as noble a title.



February 14, 1848.

William Yarrell, Esq., Vice-President, in the Chair.

A Letter from James Brooke, Esq., Corresponding Member, was read, in which that gentleman begs to present to the Society the whole of the zoological specimens he has from time to time forwarded to England. A portion of this extensive collection, which was formed by Mr. Brooke chiefly at Borneo and Sincapore, was laid before the Meeting.

Mr. Gould exhibited and characterized the following two new species of Birds, from the collection formed by Capt. Sir Edward Belcher, R.N., during the voyage of Her Majesty's Ship 'Sulphur.'

**PTEROGLOSSUS ERYTHROPHYGIUS.** *Pt. vertice, facie, mento, et dorso superiore nitidè virescenti-nigris; alis caudæque sordidè fusciscenti-viridibus; dorso inferiore, uropygio, et caudæ tectricibus splendide sanguineis; corpore inferiore flavo, pectore superiore sanguineo tincto, inferiore vittâ coloribus nigro et sanguineo commixtis, fasciato.*

Crown of the head, sides of the face, chin, and upper part of the back shining greenish black; wings and tail dull brownish green; lower part of the back, rump, and upper tail-coverts shining blood-red; under surface yellow, stained on the chest with blood-red, and crossed on the breast by a band of mingled black and blood-red; bill bordered at the base by a narrow line of dull white; the remainder of the bill yellowish horn colour, with a broad stripe of black along the upper mandible near the cutting edge, and the tip of the under mandible black; feet greenish black.

Total length, 18 inches; bill, 5; wing,  $6\frac{1}{4}$ ; tail,  $7\frac{1}{2}$ ; tarsi,  $1\frac{1}{4}$ .

**PTEROCLES PERSONATUS.** *Pt. plumis a basi rostri, usque ad oculos, intense nigris; capitis reliquis partibus, collo, et pectore arenaceo-cervinis, non sine tinctura vinosâ ad basin colli; dorso vinoso-fusco; caudæ tectricibus pallidè fuscis, notis irregularibus cervinis per plumas in lineis obliquis ordinatis, crebrè guttatis.*

*Femina facie nigra caret.*

**Male.**—Feathers surrounding the base of the bill, as far as the eyes, deep velvety black; remainder of the head, as well as the neck and chest, sandy buff, tinged with vinous at the base of the neck, both above and below; back vinous brown; wings sandy buff, the coverts tipped with dark brown, which colour forms three semicircular fasciæ across the wing; primaries and secondaries dark brown, the latter marked irregularly with sandy buff on the basal half of their outer margins; rump and upper tail-coverts light brown, with

No. 1111. PROCEEDINGS OF THE ZOOLOGICAL SOCIETY.

numerous irregular marks of buff, arranged in oblique lines down the length of the feathers; tail-feathers deep brown, crossed on their outer webs with decided, and on the inner with irregular, bars of buff, all the feathers largely tipped with buffy white, all the under surface crossed with small bars of dark brown, light brown, and buff; under tail-coverts sandy buff.

The female differs in not having the black face, in having all the upper as well as the under surface of the body barred, like the latter part in the male; the wings numerous barred with brown, and the under tail-coverts sandy red.

Total length, 13 inches; bill,  $\frac{7}{8}$ ; wing,  $8\frac{1}{2}$ ; tail, 4; tarsi, 1.

Mr. Fraser laid before the Meeting eight new species of Birds from Western Africa, which he thus characterizes:—

**COLLURIO SMITHII.** *Coll. supernè niger, plumis scapularibus, guttâ apud primarias, secundariorum nonnullarum apicibus sic et corpore subtus, reetricumque caudæ quatuor externarum apicibus, albis; rostro pedibusque nigris.*

Long. tot. 8 poll.; rostri,  $\frac{3}{4}$ ; alæ,  $3\frac{1}{4}$ ; caudæ,  $4\frac{1}{2}$ ; tarsi,  $\frac{3}{4}$ .

*Hab.* Cape Coast.

This species is named in honour of Dr. Smith, the author of the 'Illustrations of the Zoology of South Africa.'

**DRYMOICA MENTALIS.** *Drym. suprâ fusca, primariis ad marginem pallidioribus, subtus rufescens, fronte genisque rufo-castaneis, gulâ et lined angustâ superciliari albis; lined angustâ nigrâ inter gulam albam, genasque castaneas; caudâ?; rostri mandibulâ superiore nigrâ, inferiore corned; tarsis flavis.*

Long. tot.? poll.; rostri,  $\frac{3}{4}$ ; alæ,  $2\frac{3}{4}$ ; caudæ, ?; tarsi, 1.

*Hab.* Accra.

**DRYMOICA STRANGEI.** *Drym. suprâ fusca, strigâ superciliari et corpore subtus albis; reetricibus caudæ subtus saturatè cinereis, guttâ nigrâ propè apices, apicibus albis.*

Long. tot.  $5\frac{1}{4}$  poll.; rostri,  $\frac{3}{4}$ ; alæ,  $4\frac{1}{2}$ ; caudæ, 2; tarsi, 1.

*Hab.* Accra.

"I have ventured to name this species after Lieut. J. N. (now Commander) Strange, R.N., to whom I was indebted for kindness and assistance throughout the whole term of the expedition."

**DRYMOICA LATERALIS.** *Drym. suprâ fusca, lateribus cinerascens, subtus alba, femoribus rufis, reetricibus caudæ subtus saturatè cinereis, guttâ nigrâ propè apices, apicibus albis.*

Long. tot.  $5\frac{1}{2}$  poll.; rostri,  $\frac{3}{4}$ ; alæ,  $2\frac{1}{2}$ ; caudæ, 2; tarsi,  $\frac{3}{4}$ .

*Hab.* Cape Palmas.

Differs a *Drym. Strangei* corpore suprâ saturatiore, lateribus cinereis, caudâ magis gradatâ, cum colore albo apicali magis circumscripto, et obscuriore.

**DRYMOICA RUFICAPILLA.** *Drym. ♂ vertice rufo, corpore suprâ saturatè fusco, corpore toto inferiore et gulâ albis, dimidio femorum*

*inferiore rufo; caudâ ut in D. laterali, at magis gradatâ; rostro nigro.*

Long. tot.  $6\frac{1}{2}$  poll.; rostri,  $\frac{4}{5}$ ; alæ,  $2\frac{1}{2}$ ; caudæ,  $2\frac{1}{2}$ ; tarsi,  $\frac{7}{8}$ .

*Hab.* River Nûn, Western Africa.

This species differs from others of the genus here described in having the white of the under parts extending to the nostrils, a rufous crown to the head, and a black beak. It was shot near the mouth of the above-mentioned river in the month of August.

*DRYMOICA RUFA. Drym. suprâ rufa, subtùs sordidè flava, rostro tarsisque flavis.*

*Hab.* River Quorra, opposite Iddah.

*DRYMOICA RUFOGULARIS. Drym. ♀ suprâ fuliginosè fusca, levitèr viridi tincta; gula pectoreque rufescentibus; abdomine, tectricibus alarum inferioribus et caudâ utrinque rectricibus tribus externis albis; rostro suprâ nigro, subtùs flavo; tarsis carnis, iridibus pallidè rufescenti-fuscis.*

Long. tot.  $3\frac{3}{4}$  poll.; rostri,  $\frac{1}{2}$ ; alæ,  $1\frac{3}{4}$ ; caudæ,  $1\frac{1}{2}$ ; tarsi,  $\frac{3}{4}$ .

*Hab.* Clarence, Fernando Po.

*DRYMOICA UROPYGIALIS. Drym. suprâ fusca, singulis plumis pallidiorè marginatis, strigâ superciliari et corpore subtùs albis, lateribus et femoribus levitèr rufo-lavatis, uropygio subrufo; caudâ saturatè fuscâ, fasciâ perpallidè rufâ, alterâ nigrâ, et apice albo, rostro fusco, tarsis flavis.*

Long. tot. 4 poll.; rostri,  $\frac{1}{2}$ ; alæ, 2; caudæ,  $1\frac{1}{2}$ ; tarsi,  $\frac{5}{4}$ .

*Hab.* Accra.

A series of Shells were laid before the Meeting, upon which Mr. Hinds observed that they constituted the first portion of a collection which it is proposed, from time to time, to bring under the notice of the Society. The collection was made by Captain Sir Edward Belcher, R.N., C.B., during the late voyage of Her Majesty's Ship 'Sulphur,' aided by the cooperation of Mr. Hinds, the surgeon of the vessel; and it is the intention to publish them in a collected form in the forthcoming 'Zoology of the Sulphur,' with copious illustrations of everything of novelty or interest. The following descriptions are by Mr. Hinds:—

#### TRICHOTROPIS, Brod. et Sow.

*TRICHOTROPIS CANCELLATA. Tri. testâ oblongâ; anfractibus senis, rotundatis, costatis, valdè cancellatis; costis setosis; anfractu ultimo infrâ subplanulato; suturâ profundâ; aperturâ rotundatâ, ad basin truncatâ; umbilico parvo lineari, labio inferno ferè occulto. Axis 8 lin.*

*Hab.* Sitka, North-west America. Dredged in the harbour from a sandy bottom, in from five to seven fathoms, together with *T. inermis*.

Shell oblong, the spire more produced than in *T. bicarinata*; the whorls separated by a deep suture, profoundly cancellated; many

keeled, and furnished on the lines of the striæ of increase with numerous short bristles at regular intervals. The aperture is rounded, and truncated at the base; the canal so short as scarcely to exist. Umbilicus small, and somewhat concealed by the inner lip, which is slightly developed.

Three specimens are in the collection, and one, being a dead shell and deprived of its epidermis, shows very distinctly the deep cancellation of the whorls. A single specimen, and larger by two lines, is in the possession of Mr. Cuming, who obtained it with some shells from the north-west coast of America, the measurement of which I have adopted.

**TRICHOTROPIS INERMIS.** *Tri. testâ ovatâ, solidâ; anfractibus quaternis rotundatis, multicostatis, longitudinaliter levissimè striatis; costulis subæqualibus, planulatis, inermibus; aperturâ oblongâ, canali brevi desinente; umbilico mediocri; labio interno producto.*  
Axis  $7\frac{1}{2}$  lin.

*Hab.* Sitka, North-west America. Obtained in company with the preceding.

In shape and outline this shell approaches *T. borealis*. It will be readily distinguished from any hitherto known species by the absence of armature on the epidermis, in which we lose sight in the instance before us of one of the characters of the genus. The whorls are rounded and separated, as in the other species, by a deep suture. The last whorl is remarkable for the strong ridges which it bears at rather distant intervals, marking the termination or commencement of the periodical stages of growth.

In the method of formation of the canal there is a close affinity in this shell to some *Cancellariæ*, particularly in the angular-mouthed species, and the affinity is extended to the character of the whorls and their connexion by the suture.

**TRICHOTROPIS FLAVIDA.** *Tri. testâ oblongâ, tenui; spirâ elatâ; anfractibus septenis tricostratis, ultimo infernè quadricostato; epidermide pallidè corned indutâ; aperturâ angulatâ, ad basin obliquè truncatâ; canali brevissimo; umbilico parvo, lineari.* Axis 8 lin.

*Hab.* — ?

Allied to *T. cancellata*, but is a more delicate and elongated shell; and the epidermis, though having some shreds attached to it, is destitute of the bristled armature. A single specimen is in the collection of Mr. Cuming, without any history.

#### **TYPHIS, Montfort.**

**TYPHIS QUADRATUS.** *Typ. testâ subquadratâ, fusca vel albida, lineis pallidis transversis; quadrifariam varicosâ; varicibus crassis, acutis, ad spiram commixtis, supernè nodulosis, in spinis appressis desinentibus; tubulis subrectis vel deorsum inclinatis; canali mediocri laterali.* Axis 11 lin.

*Hab.* Gulf of Nicoya and the Bay of Guayaquil. Dredged from a muddy bottom in from seven to eighteen fathoms.

Allied to *Typhis Sowerbii*, but distinguished from it by its squarish

shape, thick and nodulous varices, closely appressed spines, and the decided lateral direction of the canal.

**TYPHIS ARCUATUS.** *Typ. testd corned, fusiformi; quadrifariam varicosd; varicibus arcuatis, inermibus, ad spiram benè distinctis, supernè in tubulis desinentibus; tubulis complanatis, ascendentibus; canali mediocri recurvo.* Axis  $5\frac{1}{2}$  lin.

*Hab.* Cape of Good Hope. Dredged on the L'Agulhas Bank in from forty to fifty-four fathoms.

Shell fusiform, of a horn-colour; the varices arcuate, terminating in the tube, and ascending the spire even to the apex, giving it a pyramidal shape. The character of the bowed spineless varices is peculiar, and altogether it is a very distinct species.

**TYPHIS NITENS.** *Typ. testd ovali, albidd, levigatd, nitidd; quadrifariam varicosd; varicibus acutis in spinis excentricis desinentibus; tubulis rectis; canali brevi recurvo.* Axis 4 lin.

*Hab.* Straits of Macassar, Indian Archipelago. Dredged from among gravel and coral in eighteen fathoms.

Looking from the apex, the spines and tubes will be seen to be disposed in an elegant spiral manner about the spire. It is the first species, as far as I am acquainted, that has hitherto been found in the Indian seas, and is at the same time the smallest yet recorded.

A communication from Prof. Owen was read, proposing to substitute the name *Dinornis*\* for that of *Megalornis*, applied to the Great Bird of New Zealand in his paper read at the previous Meeting. The change is rendered desirable, to prevent confusion in nomenclature, Mr. G. Gray having previously used the term *Megalornis* for a genus of Birds in his 'List of the Genera,' &c.

\* From *δεινός*, *prodigious*, and *ῥενς*, *bird*. This change in the name has been made in the paper referred to whilst passing through the press.

February 28, 1843.

William Horton Lloyd, Esq., in the Chair.

A letter from J. E. Gray, Esq., addressed to Mr. Waterhouse, was read, containing an account of two new species of Bats, a species of the family *Hystriidae*, and a new *Manis*.

The two specimens of Bats to which Mr. Gray's observations refer, are from Hayti, and were presented to the Society by J. N. Tweedy, Esq., Corresponding Member.

One, Mr. Gray observes, constitutes a second species of the genus *Chilonycteris*, which he had founded upon some specimens brought from Cuba by W. S. MacLeay, Esq.\*, and agrees in almost every particular with *Chilonycteris MacLeayi*, but differs from the three specimens of that species contained in the collection of the British Museum in being of a much darker colour, and in having the ears larger and rather narrower. The principal characters are as follows:—

*CHILONYCTERIS FULIGINOSUS. Chi. suprà fuliginosus, fusco-tinctus, subtus fuscescens, gulâ femoribusque ad basin rufescentibus; auribus elongatis, attenuatis, acutis.*

	unc. lin.
Longitudo ab apice rostri ad caudæ basin ..	1 8
———— caudæ .....	0 10
———— auris .....	0 5 $\frac{3}{4}$
———— antibrachii .....	1 7
Alarum amplitudo .....	8 10

*Hab.* Hayti.

The second species, Mr. Gray remarks, is more interesting, since it proves to be a new genus, readily characterized by the size and structure of the ears, and the length of the tail. It agrees most nearly with the genus *Macrophyllum*, but differs from it in having the last joint of the tail produced beyond the edge of the large truncated interfemoral membrane; the tail in the species of the genus last mentioned only extending to the edge of the membrane. Another important difference consists in the large size of the ears and their union on the upper surface of the head—a character which is the more remarkable, since it affords an exception to the rule which has hitherto been general, viz. that the Bats with a simple nose-leaf (*Phyllostomina*), which are inhabitants of the New World, have the ears separate and confined to the sides of the head, whilst those found in the Old World have them united as in this genus from Hayti, which thus unites the Glossophagine genera of this tribe with the *Rhinopomæ* of India and Africa. The large size of the ears suggests for this genus the name

\* See Annals and Magazine of Natural History, vol. iv. p. 4.



## MACROTUS.

Ears large, lateral, slightly plaited, united over the head by a rather high transverse membrane. Tragus elongate, acute; lobule broad and divided from the conch by a slight nick. Nose-leaf lanceolate, erect; the front margin distinct. Lower lip with a narrow, triangular, smooth-edged wart, grooved in front. Wings broad; thumb rather elongated; the first joint webbed. Interfemoral membrane large, truncated; the heel-bones long; feet free to the ankles; largest toes subequal. Tail elongate, tapering, enclosed in the membrane with the exception of the last joint, which is produced beyond the edge.

MACROTUS WATERHOUSII. *Macr. colore murino, abdomine pallidior*; *prosthema lanceolato*.

	unc.	lin.
Longitudo ab apice rostri ad caudæ basin ..	2	6
— caudæ ..	1	2
— auris ..	1	2
— pollicis ..	0	6½
— prosthematis ..	0	5
— antibrachii ..	2	2
— tibiæ ..	0	11
— calcaris ..	0	6

*Hab.* Hayti.

The interfemoral membrane, in this Bat, has a muscular band on each side, situated about one-third of the distance between the base of the tail and the heel-bone. The ears are rounded at the apex, and slightly hairy. The tragus is of an ovate-lanceolate form, has an acute tip, and a very indistinct notch near the base on the outer side.

Mr. Gray has since received specimens of this species from Jamaica, where it was discovered by Dr. Parnell; this and the two following species are indicated under the name here used in the recently published list of the Mammalia in the British Museum.

Mr. Gray next proceeds to make some observations upon a species of Porcupine in the collection of the British Museum. This animal is the *Hystrix subspinosus* of Lichtenstein, and has been described under that name by Kuhl. It however presents various important modifications in the structure of the skull and teeth, upon which Mr. Gray thinks it desirable to establish a new genus under the name of

## CHÆTOMYS.

The body and limbs are covered with subequal, short, and rather flexible spines. The tail is of an elongate conical form, and provided with rings of square scales and scattered bristles.

The skull is short, and has broad, convex, swollen zygomatic arches, and the palate is contracted. The cutting teeth are rounded in front; the grinders are  $\frac{4-4}{4-4}$ ; each grinder of the upper jaw has

two principal folded plates of enamel and a smaller transverse fold between them. The lower grinders are oblong, and the foremost of these teeth presents two roundish rings of enamel, each of which has an internal fold, and the hinder ring has moreover a small fold on the fore part of the outer side. Each of the other molars in this jaw is furnished with two sinuous folds on the inner side and one on the middle of the outer edge. Of this animal (which is from Brazil) a figure will be found in the 'Abbildungen' &c. of the Prince de Neuwied.

The new species of *Manis* referred to in the letter is from Western Africa, and is at once distinguished, Mr. Gray observes, from the *Manis tetradactyla* (which it most nearly approaches) by its having the tail rather shorter—that is, about half as long again as the body—and double the number of series of scales on the body, and also by the scales being more acute, and furnished each with three sharp points. Two specimens of this species, of different sizes, are contained in the British Museum collection. It is named by Mr. Gray

*MANIS MULTISCUTATA.* *Manis caudæ corpore multum longiore; squamarum dorsaliū elongatarum, tricuspidum, ad basin striatarum, seriebus 23.*

*Hab.* Western Africa.

Mr. Gould exhibited a new species of Australian Heron:—

*ARDEA RECTIROSTRIS.* *Ardea supernè fuscescenti-cinerea, capite et cristâ nigris; rostro magis recto atque robusto quàm in Ardeâ cinereâ.*

Crown of the head and crest dull black; back of the neck and all the upper surface brownish grey, passing into greyish white on the tips of the wing-coverts; secondaries, scapularies and tail-feathers dark grey; spurious wing and primaries greyish black; sides of the face and chin white; down the front of the neck an interrupted line of black, formed by each feather having an oblong stripe of black on the inner side of the stem near the tip, the marks becoming larger and paler in colour as they approach the chest, the same kind of marking continuing over the under surface, but the stripes very pale brown; under tail-coverts white; bill dark horn-colour, becoming nearly black on the culmen; feet greenish black.

Total length, 37 inches; bill, 7; wing,  $16\frac{1}{2}$ ; tail, 7; tarsi,  $6\frac{1}{2}$ .

*Hab.* New South Wales.

The above description is taken from a bird which appears to be immature; it has much the appearance of, and is nearly allied to, the Common Heron of Europe.

A communication from Mr. Hinds, containing descriptions of two new species of Shells, from the collection of Hugh Cuming, Esq., was then read.

Genus *TRIPHORIS*, Deshayes, Hinds, Ann. Nat. Hist. vol. xi. p. 16.

*TRIPHORIS PAGODUS.* *Tri. (Ino) testâ cylindraced, elongatâ, acumi-*

*natd, anfractibus 18-20, tricarinatis; carinis inæqualibus, inferiore multo maximd, duobus superioribus parvis æqualibus; aperturâ quadratâ. Axis 8½ lin.*

The only specimen of this shell is dead and imperfect. It is, however, slightly mottled with brown, being most probably the remains of an uniform colour. It is rendered very distinct from any species hitherto described by the manner of its keeling. A faint elevated line would also appear to traverse the course of the suture.

*Hab.* Baclayan, island of Bohol, Philippines. Found under stones at low water.

**TRIPHOBIS COLLARIS.** *Tri. (Mastonia) testâ ovatâ, acuminatâ; anfractibus duodecim biserialim granulosis, serie inferiore paululum maximâ, margaritaceâ, superiore pallidè fuscâ; anfractu ultimo quadriseriatim subæqualiter catenato. Axis 4 lin.*

*Hab.* Island of Corregidor, Philippine Islands.

Found among coarse sand at a depth of six fathoms.

Many of these small shells have received an injury which has destroyed the mouth, and the present specimen has not escaped.

Descriptions of some new species of the Genus *Lima*, in the collection of H. Cuming, Esq., by G. B. Sowerby, Jun., were read.

**LIMA CUMINGII**, Nob. Thes. Conch. pl. xxii. f. 25. *Lim. testâ tenui, parvâ, ventricosâ, obliquè ovato-subelongatâ utrinque fere clausâ, ad marginem posticum subangulatâ, ad marginem ventralem subquadratâ; cardine brevi; auriculis obtusis; umbonibus inflatis; striis in medio duodecim elevatis, distantibus, ad marginem ventralem dentatis: colore albô.*

Long. 0.25; lat. 0.12; alt. 0.35.

*Hab.* Bolinao, Ins. Luzon Philippinarum. H. Cuming legit.

I have seen only one specimen of this very distinct small shell, which differs from *L. fragilis* (Chemn. t. 68. f. 650.) in being more ventricose, and having the margin nearly closed all round. In the latter respect it resembles *L. Loscombii*, Leach (*Bullata*, Turton).

Found in sandy mud: ten fathoms.

**LIMA ANGULATA**, Nob. Thes. Conch. pl. xxii. f. 39, 40. *Lim. testâ obliquè ovatâ, ventricosâ, radiatim striatâ, utrinque paululum hiante, ad marginem posticum angulatâ, ad marginem ventralem obliquè rotundatâ, propè umbones angustatâ; cardine brevi; auriculis parvis, posticâ acutâ: colore albô.*

Long. 0.90; lat. 0.60; alt. 1.10.

*Hab.* Panama. H. Cuming legit.

In form resembling *L. Loscombii*, from which it differs in having an hiatus on both sides, and a rather strong angle at the base of the posterior lateral margin. Collected at Panama, in sandy mud, at twelve to twenty fathoms.

The following descriptions of new species of *Cypræa* were communicated by J. S. Gaskoin, Esq.

**CYPRÆA SAULÉ.** *Cyp. testâ oblongo-ovatâ, anticè subattenuatâ, ful-*

*vescente fusco punctulatâ, maculâ magnâ medianâ dorsali, maculisque parvis lateribus castaneis; basi subrotundatâ, pallescente; aperturâ angustâ, subflexuosâ, anticè latiusculâ; columellâ posticè subgibbosâ; dentibus prominulis albidis interstitiis aurantiacis; extremitatibus prominentibus subreflexis; marginibus prominentibus subangulatis; spirâ profundè umbilicatâ.*

Shell oblong-ovate, gradually attenuating towards the anterior end, quite smooth; of a very light fawn or light flesh-colour, dotted distinctly and irregularly with small chestnut-brown spots, with much larger ones on both margins, and a remarkably large spot of the same colour about the centre of the *dorsum*: base rather round, of a very light reddish yellow colour: aperture rather narrow, slightly flexuous, somewhat wider towards the anterior extremity: *columella* rather gibbous at the posterior half of the shell; no columellar groove: teeth rather bold, whiter than the base, even, excepting those at the anterior end of the *columella*, where they are larger: *all* terminate externally on the *columella* in an even line at the edge of the aperture, and within, also in an even line, on the *columella*, except two or three at the anterior end, which advance a little more inwards; those on the lip are even, and extend a little over it, outwards; in number they are from sixteen to eighteen on the columellar side, fourteen to sixteen on the lip; interstices between the teeth and between the extremities more or less of an orange colour: extremities produced, the posterior curving towards the *columella*; the posterior outer beak longer than the inner, the anterior very slightly so: margins, the outer prominent, angular, more so towards the anterior extremity; the inner exists but on the anterior third of the shell, and is also prominent and angular; a groove across the anterior end, from the depression formed on either side by the projecting margins, and termination of the channel reflecting outwards: spire umbilicated, with a notch or groove on the columellar side, from a partial reflection of the posterior channel: internal colour light reddish brown. I have seen but four examples of this shell, two perfect and two decorticated. Axis,  $\frac{7}{8}$ ths; diameter,  $\frac{4}{8}$ ths of an inch.

*Hab.* Island of Corregidor, Bay of Manilla. Found in coarse sand and gravel at seven fathoms.

In the collection of H. Cuming, Esq.

*Decorticata* light brown colour; large darker spot in the centre of the *dorsum* well-marked; a brown spot on the outside of each anterior extremity; aperture much paler than in the perfect shell.

I know no species with which this elegant shell could be confounded; the remarkable, large, well-defined spot on the *dorsum*, the orange (more or less) coloration between the teeth and beaks, and its gradually attenuating graceful form, distinguish it from all others.

Mr. Cuming, whose valuable labours in the service of natural history were rewarded, *inter alia*, by the discovery of this shell, during their four years' continuance in the Philippine Islands, has requested me to name it after an amiable and liberal collector, Miss Saul, and it has afforded me much pleasure to comply with his wish.

**CYPRÆA LEUCOSTOMA.** *Cyp. testâ ovatâ, ventricosâ, fusco-cinereâ; lateribus maculatis, maculâ magnâ irregulari dorsali castaneâ, lined dorsali pallidâ percurrente; marginibus rotundatis crassis; extremitatibus posterioribus crassis prominentibus dextro præcipuè, anticis convergentibus; basi rotundatâ, albicante margine interno labii nonnunquam obtusè dentatâ, columellâ edentulâ.*

Shell ovate, gibbous, smooth; of a brownish ash-colour, spotted on each side with darker spots, the general ash-brown colour on the sides declining in intensity ultimately to whiteness; a large chestnut-brown, irregular, splashed, or dotted spot on the dorsum; in some instances more confined and small; where the spot is deepest coloured and largest, the ground on which it is formed is nearly white; posterior part of the *dorsum* irregular, slightly tuberculated, dorsal line marked, nearly white (and in some instances appears both anteriorly and posteriorly to bifurcate), diverging anteriorly towards the columellar side: base white, roundish: aperture rather wide, flexuous, columellar groove on the anterior half of the shell; the porcelain covering on the gibbous portion of the *columella* extremely thin; *columella* smooth: teeth generally but slight denticulations; sometimes more perceptible on the lip: extremities, posterior, much produced, very obtuse, wide apart, columellar beak divergent; anterior, rather thick, converge at their points towards each other: margins round, light-coloured or white, spotted to the base; outer margin sometimes uneven, or somewhat nodulated: spire, in all the specimens I have seen, quite covered and obliterated: colour, internally, light grayish blue. Axis  $1\frac{1}{2}$  inch; diameter  $1\frac{1}{8}$  inch.

*Hab.* Mocha. In the collection of Mr. Gaskoin, Cuming, &c.

This shell approximates in general appearance to *Cyp. Mus*. Some years ago one of this species (*leucostoma*) came accidentally into my possession, which on comparison I found incompatible with *Mus*; and shortly afterwards another, which warranted the distinctive nomenclature. Mr. Sowerby has lately obtained five other specimens, and with them fortunately a knowledge of their locality, which I have quoted. These are now dispersed in the cabinets of Messrs. Harford, Cuming, Stainforth, Norris, and Miss Saul; two others are known to be in the cabinet of Mr. Owen at Manchester.

This species differs from *Mus* in being more gibbous; in the prominent and very blunted posterior extremities, the base and aperture being white; denticulations but very slightly indicated, or absent, and always white.

I have named this *leucostoma*, in contradistinction to that which it most nearly resembles, the *Cyp. Mus*, with its dark-coloured aperture.

Mr. Fraser exhibited and described a new species of Bat, belonging to the genus *Rhinolophus*, and four new species of Birds from Western Africa.

**RHINOLOPHUS MARTINI.** *Rhin. auribus magnis apud frontem inter se spatio angusto sejunctis; rostro fossâ oblongâ supernè, anticè quatuor appendiculis carneis, vix elevatis (duobus utrinque), testâ:*

*prosthema nasali longitudinaliter diviso; fossa frontali posticè culmine semicirculari dense vellere induto, collimetatâ; caudâ longâ et cartilagine bifurcâ terminatâ; patagio ad pedes basim solummodò ducto: colore cinereo-fusco, subtùs canescente.*

	unc.	lin.
Long. tot. ....	3	5
Volatûs amplitudo .....	10	0
—— latitudo maxima .....	2	4
Antebrachium .....	1	6
Auris .....	0	9
Cauda .....	1	7

*Hab.* Fernando Po.

This species of *Rhinolophus* is remarkable for having the complicated fleshy appendages of the muzzle divided in the longitudinal direction. Each half of this apparatus is composed of two leaflets, the margins of which are free, though but little elevated; the foremost of these is shaped somewhat like the human ear, and terminates in front in a small prominent lobe, which is situated over the opening of the nostril; the second or hindmost leaflet on each side approaches to a circular form. Upon separating these four leaflets a large pit is observable on the upper surface of the muzzle, and the hinder margin of this pit terminates in a nearly semicircular and slightly elevated fleshy ridge, which is densely clothed with fur. The ears are large, rounded at the extremity, but inclining to a pointed form, and separated from each other on the top of the head by a space of about two and a half lines in width; on the inner side, and towards the base, is a narrow oblique ridge: the tragus is about two and a half lines in length, narrow, rounded at the extremity, and somewhat dilated near the base on the outer margin. The wing and interfemoral membranes join the foot at the base; the latter extends to the extremity of the tail, which terminates in a bifurcated cartilage; numerous minute papillæ are observable on the margin of the interfemoral membrane. The general colour of the animal, in spirit, is gray-brown, but with an ashy tint on the under parts of the body, and is darker than that of the *Rhinolophus Hipposideros* of authors.

**GLAREOLA CINEREA.** *Glar. supernè cinerea, collo rufo, corpore subtùs albo rubro tincto, lined nigrâ pone nares oriente sub oculos et per plumas auriculares albas ductâ, caudæ tectricibus albis; rectricibus caudæ singulis notâ nigrâ versus apicem; remigum primarum pogoniis internis albis; secundariis albis apicibus nigris; rostri ad basim flavo, apice nigro.*

Long. tot.  $6\frac{1}{2}$  poll.; rostri,  $\frac{3}{4}$ ; alæ,  $5\frac{1}{2}$ ; caudæ,  $2\frac{1}{2}$ ; tarsi,  $\frac{7}{8}$ .

*Hab.* The mouth of the River Nùn.

In some specimens (probably the young) the black stripe on the side of the head, the rufous neck, and the red tinge on the under surface is wanting.

This species is nearly allied to *Glareola lactea* (Temm. Pl. Col. 399), but in that bird the black mark on the side of the head only

extends from the nostril to the eye, whilst in the present species the black line passes under the eye and extends backwards and downwards over the ear. The *G. cinerea* differs moreover from the *G. lactea* in having a rufous neck; the rufous tint of the chest is more distinct, the back is of a deeper gray colour, and the legs, as well as the base of the bill, are yellow.

**ANTHUS GOULDII.** *Ant. supernè fuscus, subtùs pallidior tincturâ ferrugined, gulâ albâ, remigibus et tectricibus alarum ferrugineo-marginatis, caudâ corpore intensiore; rectrice externâ ferrugined; rostro pedibusque flavis.*

Long. tot. 7 poll.; rostri,  $\frac{4}{8}$ ; alæ,  $3\frac{3}{4}$ ; caudæ, 3; tarsi, 1.

*Hab.* Cape Palmas.

**ESTRILDA RUFOPICTA.** *Estr. supernè fusca, fronte, facie, gulâ, et pectore cum tectricibus caudæ vinaceis; hoc colore corpore reliquo inferiore, et caudæ supernè tinctis; alarum tectricibus inferioribus flavido-albis; guttis minutissimis perpaucis albis apud pectus; rostro rubro, culmine nigro.*

Long. tot.  $3\frac{3}{4}$  poll.; rostri,  $\frac{3}{4}$ ; alæ,  $1\frac{7}{8}$ ; caudæ,  $1\frac{4}{8}$ ; tarsi,  $\frac{1}{2}$ .

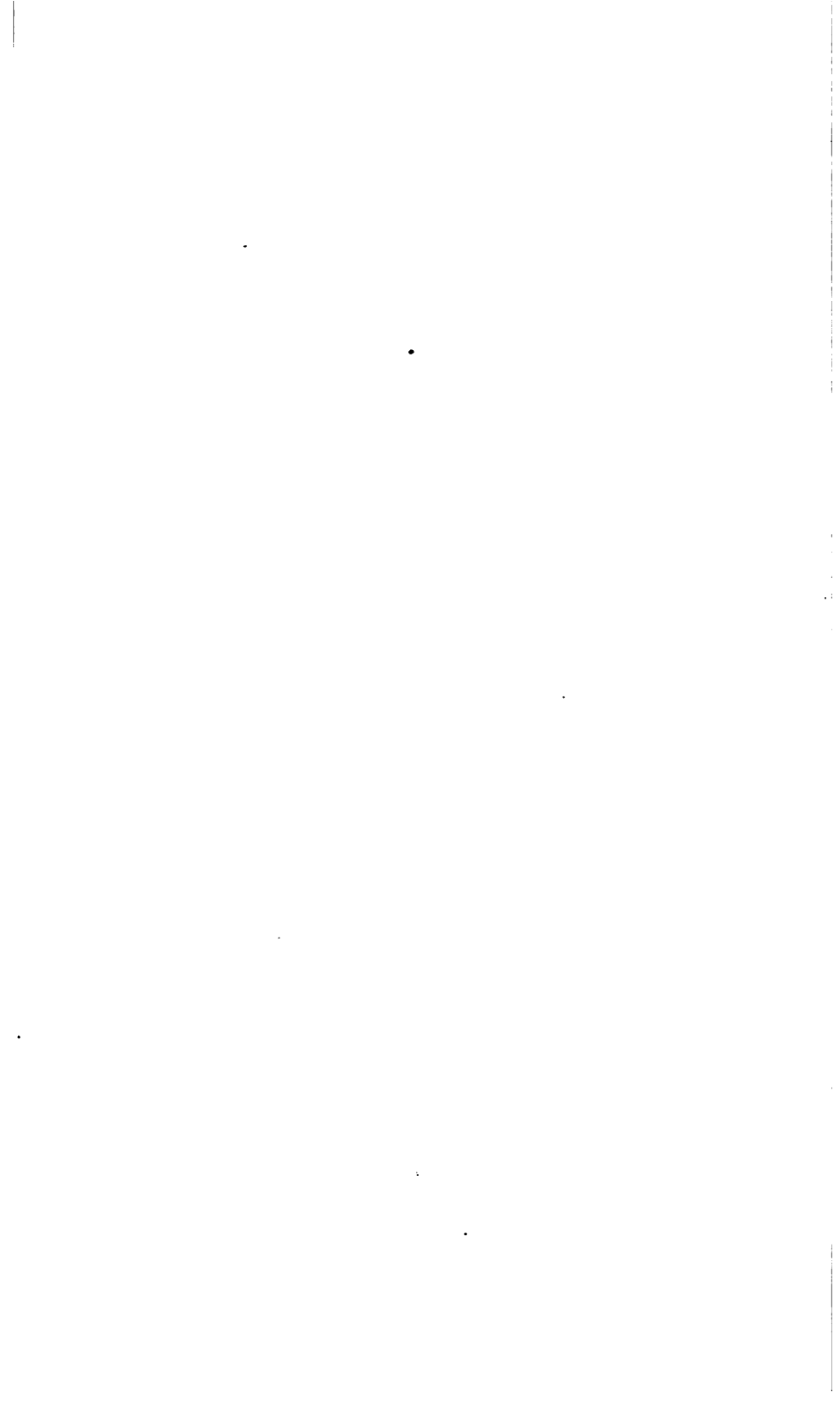
*Hab.* Cape Coast.

**IXOS INORNATUS.** *Ix. fuscus, capitis et caudæ colore intensiore; corpore subtùs sordidè albescenti-fusco.*

Long. tot. 8 poll.; rostri,  $\frac{3}{4}$ ; alæ,  $3\frac{3}{4}$ ; caudæ,  $3\frac{1}{2}$ ; tarsi,  $\frac{7}{8}$ .

*Hab.* Cape Coast.

Various specimens selected from the collection presented by James Brooke, Esq., Corresponding Member, were exhibited.





March 14, 1843.

William Yarrell, Esq., Vice-President, in the Chair.

A paper by Mr. G. B. Sowerby was read, containing the following descriptions of new species of Shells belonging to the genus *Cyclostoma*. The species described are chiefly from the collection of H. Cuming, Esq.

**CYCLOSTOMA SUTURALE.** *Cycl. testâ orbiculato-depressâ, tenui; epidermide olivaceâ indutâ; anfractibus 3-4 rotundatis, transversim tenuissimè striatis; aperturâ circulari, supernè emarginatione obsoletâ; peritremate tenui, margine acutiusculo; umbilico patulo; operculo concinnè spirali.*

*Hab.* in umbrosis Demeraræ.

A few specimens of this species were received many years ago by G. C. Bainbridge, Esq., of Liverpool.

**CYCLOSTOMA RUGULOSUM.** *Cycl. testâ orbiculato-subdepressâ, tenui, translucidâ; anfractibus 4-5 rotundatis, rugulosis; suturâ distinctâ; aperturâ rotundatâ, supernè acuminatusculâ; peritremate tenui, margine acutiusculo; umbilico magno.*

*Hab.* in Jamaica.

Found among the shells in the collection of the late G. Humphrey.

**CYCLOSTOMA SEMISTRIATUM.** *Cycl. testâ orbiculato-subdepressâ, tenui, albâ, fasciis pallidè fuscis interruptis; spirâ subprominulâ, apice obtusiusculo; anfractibus 4-5 rotundatis, supernè longitudinaliter striatis, infrâ levibus; suturâ distinctâ; aperturâ circulari, supernè subacuminatâ; peritremate obsoletissimè subreflexo, tenui, margine acutiusculo; umbilico magno; operculo sulco externo spirali, anfractibus 4-5.*

*Hab.* in Indiâ Orientali, in regione Poonah dictâ.

**CYCLOSTOMA TRANSLUCIDUM.** *Cycl. testâ subglobosâ, subpellucidâ, albâ; epidermide corneo-indutâ; spirâ breviusculâ, obtusâ; anfractibus quatuor rotundatis, propè suturam elevatiusculis, striatis, supernè rugulosis; aperturâ subcirculari, supernè subacuminatâ; peritremate acuto; umbilico mediocri; operculo testaceo, tenuiusculo, anfractibus septem, striatis.*

**CYCLOSTOMA BRASILIENSE.** *Cycl. testâ orbiculato-subdepressâ, tenui, albâ, opacâ; anfractibus 4-5 rotundatis, transversim striatis; suturâ profundiusculâ; aperturâ circulari; peritremate tenui, acuto; umbilico magno; operculo testaceo, duplicato, extùs tenuissimè spirali.*

*Hab.* in umbrosis propè Rio Janeiro, Brasilie.

Nos. CXXII. & CXXIII.—PROCEEDINGS OF THE ZOOL. SOC.

**CYCLOSTOMA GIGANTEUM.** *Cycl. testá orbiculato-subdepressá, crassiusculá, albicante; epidermide corned, fulvá, indutá, apice rufescente; anfractibus 5-6 rotundatis, transversá striatis, striis supernè validioribus; suturá distinctá; striá longitudinaliter impressá propè suturam; aperturá subeffusá, supernè angulatá et in canalem inconspicuam subdecurrente; peritremate subincrassato; umbilico magno; operculo lined elevatá spirali, interstitiis oblique striatis.*

*Hab.* in sylvis propè Panamam.

**CYCLOSTOMA CORRUGATUM.** *Cycl. testá orbiculato-subdepressá, crassiusculá, albida, apice rufescente; epidermide tenui, fuscá, indutá; spirá subprominulá, acuminatiusculá; anfractibus quinque rotundatis, transversá striatis et corrugatis; suturá distinctá; aperturá circulari, subeffusá, supernè angulatá et in canalem inconspicuam desinente; peritremate tenuiusculo, margine acutiusculo, latere umbilicali incrassato; umbilico magno, margine crenulato, intùs transversá striato; operculo testaceo, extùs lamina elevatá, convolutá, intùs corneo, polito.*

*Hab.* Jamaica.

**CYCLOSTOMA CLATHRATULUM.** *Cycl. testá subglobosá, crassiusculá, obscurá; spirá subconoidali, apice obtusiusculo; anfractibus quatuor ad quinque rotundatis, supernè longitudinaliter tenuiter striatis, infrá lævibus; aperturá subovali, supernè angulatá; peritremate incrassato, suprà umbilicum mediocre paululùm extenso.*

*Hab.* apud Yemen, Arabiæ.

**CYCLOSTOMA TIGRINUM.** *Cycl. testá suborbiculari, conicá, crassiusculá, læviusculá, pallescente, strigis irregularibus, transversis, saturatè brunneis pictá; spirá subacuminatá, submamillari; anfractibus quinque, raptim crescentibus, rotundatis, plerumque carinis tribus vel quatuor subobsoletis; aperturá magná, orbiculari, posticè subemarginatá; peritremate reflexo, albo, incrassato, propè ultimum anfractum subinterrupto; labio columellari subextenso umbilicum mediocre partim tegente; suturá distinctá; operculo tenui, corneo, multispirali, anfractuum marginibus lamellosis. Long. 1·0; lat. 1·25 poll.*

Mr. Cuming has collected the following varieties, viz:—

Var. *a.* Shell with three rather indistinct spiral ridges; peritreme nearly white.

Var. *b.* Shell with three rather indistinct spiral ridges; peritreme dull brown. Found under decayed leaves in the island of Guimaras.

Var. *c.* Shell with a more elevated spire and with three prominent spiral ridges, together with some small interstitial ridges. Found under decayed leaves in the island of Masbate.

Var. *d.* Shell dark brown, with less conspicuous streaks; aperture orange-brown. Found under decayed leaves in the island of Leyte.

Var. *e.* Shell like var. *d.*, but larger and paler. Found under decayed leaves at Calalonga, in the isle of Samar.

Var. *f*. Shell prettily variegated with dark brown. Found on leaves of bushes in the island of Siquijod.

Var. *g*. Shell small and thicker, with rather elevated spire and prominent ridges. Found under decayed leaves at Baclayan.

**CYCLOSTOMA PILEUS.** *Cycl. testd conica, tenui, albida, fusco pallidissime nubeculata; spirâ subacuminata; anfractibus quinque, planulatis, anticè carinatis; aperturâ rotundato-subtrigona, extus angulata; peritremate albo, reflexo, labiis posticè disjunctis; umbilico parvo.* Long. 0·7; lat. 0·6 poll.

*Hab.* infra foliis putridis apud Sinit, provinciæ Ilocos meridionali, insulæ Luçon. H. Cuming.

Var. *a*. Shell pale brown, mottled; peritreme white. Found at Sinit.

Var. *b*. Shell white. Found in the same situation and locality.

Var. *c*. Shell white, larger than var. *a* and *b*, with a sharper keel. Found on leaves of trees at St. Juan, in the province of Cagayan.

**CYCLOSTOMA LINGUIFERUM.** *Cycl. testd suborbiculari, subconica, crassa, pallescente, maculis saturatè brunneis angulatim variegata; spirâ subacuminata, submamillari; anfractibus quatuor, rotundatis, levibus, spiraliter obsolete striatis; aperturâ magna, orbiculari; peritremate incrassato, subreflexo; labio internè linguam latam efformante; umbilicum partim tegente.* Long. 1·1; lat. 1·25 poll.

*Hab.* infra foliis putridis, in sylvis, apud Lobock, insulæ Bohol.

Var. *a*. Light brown, variously mottled with dark brown.

Var. *b*. Much paler in colour, and having the spiral striæ much more distinct.

Var. *c*. Yellowish brown, with an orange mouth.

**CYCLOSTOMA LISTERI, Gray.** *Cycl. testd subglobosa, crassiuscula; spirâ conoidea, subacuminata; anfractibus 4-5 rotundatis, levibus, nonnunquam supernè longitudinaliter obsolete striatis; suturâ distinctâ; aperturâ circulari; peritremate subincrassato, supernè angulato, latere umbilicali calloso, callo umbilico partim obtegente; umbilico parvo, spiraliter striato.*

Var. *a*. Testd omnino albicante.

Var. *b*. Testd pallide fulva, fasciâ inferiore fusca.

*Hab.* in insulâ S<sup>a</sup> Mauritiæ.

Mr. Lovell Reeve's descriptions of various new Shells, about to be figured in the 'Conchologia Iconica,' were then read.

#### Genus PLEUROTOMA.

**PLEUROTOMA GARNONSI.** *Pleur. testd elongato-turrita, gracillimè fusiformi, albida, transversim multicarinata, carinis maculis parvis rubido-fuscis vivide pictis; anfractibus convexis, macularum grandium serie supernè ornatis; anfractu ultimo infrâ fusco-fasciato; canali plus minusve elongato.*

*Pleurotoma Babylonia* var., Kiener.

Long.  $2\frac{1}{2}$ ; lat.  $\frac{1}{2}$  poll.

*Hab.* Island of Zebu, Philippines.

We have much pleasure in dedicating this species to our excellent friend the Rev. W. L. T. Garnons, F.L.S. &c. The labour which this worthy gentleman has bestowed on the arrangement of the Woodwardian collection of shells at Cambridge bears ample testimony of his zeal for the science. Several specimens have lately made their appearance in London, but we are not aware from whence they have arrived. The above locality is obtained from a single specimen found by Mr. Cuming at that place, lying dead upon the shore at low water.

*PLEUROTOMA SPECTABILIS.* *Pleur. testâ subelongato-turritâ, multicingulatâ; albâ, cingulis nigro-maculatis, maculis grandibus et parvis, numerosissimis, anfractibus convexis, suprâ et infrâ fusco-fasciatis; canali brevi, leviter flexuosâ.* Long.  $2\frac{1}{2}$ ; lat.  $\frac{3}{8}$  poll.

*Hab.* Island of Ticao, Philippines (on the reefs).

The spotting is of a more numerous and miscellaneous character in this species than in any of the genus, though it presents in certain respects a modification of that in the preceding species. The dusky band which girds the lower portion of the whorls in that species is exhibited both round the lower and upper portions in this, and the number of spots is apparently doubled in like manner; the canal is short, and presents a great peculiarity of character.

*PLEUROTOMA EXASPERATA.* *Pleur. testâ turritâ, anfractibus in medio tuberculato-muricatis, tuberculis solidis acutis; albâ, anfractu ultimo zonâ fusâ cingulatâ; canali brevissimo; columellâ albâ, supernè callosâ; apertura fauce albo.* Long.  $\frac{7}{8}$ ; lat.  $\frac{3}{8}$  poll.

*Hab.* — ?

This interesting little shell resembles the *Pleurotoma unizonalis* in being surrounded with a single clear dark band; but it differs, first, in being of a more turritid form; secondly, in having the whorls encircled with a sharp row of tubercles instead of longitudinal ribs; and thirdly, in the columella and interior being white, whereas in that species it is always brown.

*PLEUROTOMA ARCUATA.* *Pleur. testâ arcuato-fusiformi, tenui, inflatâ, subpellucidâ, anfractibus lineatis, in medio acutè carinatis, carinâ maculis fuscis regularibus ornatâ; labro externo rotundato ab anfractu ultimo sinu lato separato; canali gracili, arcuato, spirâ longitudinem æquante.* Long.  $1\frac{1}{8}$ ; lat.  $\frac{3}{8}$  poll.

*Hab.* Coast of Veragua, Central America.

A few specimens only of this inflated transparent-looking shell were collected at the above-mentioned place by R. Hinds, Esq., of Her Majesty's ship 'Sulphur,' a zealous and intelligent conchologist.

*PLEUROTOMA PICTA* (Beck, MSS.). *Pleur. testâ acutissimè turritâ, solidâ transversim carinatâ, albâ, carinis perspicuis, subdistantibus, maculis fuscis perparce pictis, carinâ superâ valdè maximâ, labro fissurâ parvâ, subcentrali; canali recto, spirâ longitudinem æquante.* Long. 2; lat.  $\frac{1}{2}$  poll.

*Hab.* Panama, St. Blas, Gulf of Nicoya, &c.

This shell is of a straight solid growth, and cannot well be confounded with any species hitherto described.

**PLEUROTOMA PAPALIS.** *Pleur. testâ fusiformi, acutè turritâ, pallidè luteo-brunnescente, anfractibus supernè concavis, longitudinaliter leviter liratis, liris numerosis, anfractu ultimo pallidè albo-fasciato; canali brevi.* Long.  $1\frac{7}{8}$ ; lat.  $\frac{1}{4}$  poll.

*Pleurotoma mitraformis* var., Kiener.

*Hab.* —?

After carefully examining one or two specimens of this shell, which Kiener describes as a variety of the *Pleurotoma mitraformis*, I am forced to the conclusion that it is specifically distinct.

**PLEUROTOMA OBESA.** *Pleur. testâ obeso-fusiformi; spirâ turritâ, anfractibus luteolis, supernè albis, lineis fulvis, obliquis, longitudinaliter venosis; labro acuto, sinu subcentrali; canali mediocri, brevi subitò reflexo.* Long.  $1\frac{3}{8}$ ; lat.  $\frac{1}{2}$  poll.

*Hab.* —?

The solid obesity of this shell has suggested the above title.

**PLEUROTOMA VIRGINEA** (Beck, MSS.). *Pleur. testâ fusiformi-turritâ, pallidè luteolâ; anfractibus in medio angulatis, tuberculis minutis albis seriatim cinctis; anfractu ultimo multiseriatim granuloso; canali mediocri, leviter recurvo.* Long.  $1\frac{3}{8}$ ; lat.  $\frac{1}{2}$  poll.

*Hab.* Mouth of the Gambia.

This shell, though comparatively common in our collections, does not appear to have been hitherto described.

**PLEUROTOMA ANNULATA.** *Pleur. testâ solidâ, subulatâ, brunneâ; anfractibus leviter convexis, liris lævibus, pallidioribus, numerosis, annulatim cinctis; canali subelongato.* Long.  $1\frac{7}{8}$ ; lat.  $\frac{1}{4}$  poll.

This shell is not very much unlike the *Pleurotoma Deshayesii*; it may however be readily distinguished from that species by the number of well-marked ring-like ridges by which the entire surface is encircled.

**PLEUROTOMA CATENA.** *Pleur. testâ elongato-fusiformi, turritâ, acuminatâ, flavido-grisâ; anfractibus medio valdè convexis, quasi subitò tumidis, tuberculis eximiiis, albis, obliquis, seriatim coronatis; labro tenui, sinu lato; canali elongato, recto.* Long.  $2\frac{1}{4}$ ; lat.  $\frac{1}{2}$  poll.

*Hab.* —?

The leading feature of this new and very distinct shell is the bright perlaceous series of link-shaped tubercles which run round the periphery of the whorls.

#### Genus PECTUNCULUS.

**PECTUNCULUS GIGANTEUS.** *Pect. testâ valdè convexâ (juniore depressâ), solidâ, gigantâ, longitudinaliter striatâ, striis contiguis, regularibus, et sulcatâ sulcis ferè obsoletis; albâ, infernè castaneo-*

*tinctâ, supernè maculis rubido-fuscis numerosis, undatis, contingentibus, profusè et vivide pictâ; intùs albâ, marginibus (in adultâ) castaneo-nitidis, crenatis; epidermide crassâ, pilosâ. Alt. 4; long.  $3\frac{1}{2}$ ; lat. 2.*

*Hab.* Guaymas, Gulf of California.

This magnificent shell, which was brought from the above port by Mr. Babb, R.N., accords in some measure with Lamarck's description of his *Pectunculus undulatus*. The figure in Delessert's 'Recueil de Coquilles,' however, of that shell, fully exhibits its specific difference.

**PECTUNCULUS RARIPICTUS.** *Pect. testâ subobliquè cordatâ, radiatim costatâ, costis planis in medio sæpè sulcatis; costarum interstitiis profundis; albâ luteo-castanè, parçè variegatâ, intùs albâ, anticè purpureo-tinctâ.*

*Hab.* — ?

The ribs in this shell are peculiarly firm and squarely grooved out, as it were, and they are often slightly rutted about half-way up the middle.

**PECTUNCULUS AURIFLUS.** *Pect. testâ orbiculari-cordatâ, inæquilaterali, radiatim costatâ, costis obsoletè sulcatis; albâ, transversim auriflud, anticè maculis aureis nigerrimo-fuscis marginatis.*

*Hab.* — ?

This new and beautiful shell may be easily recognised by its very bright orange painting.

**PECTUNCULUS HOLOSERICUS.** *Pect. testâ suborbiculari, lævi, albidâ, multiradiatâ, epidermide sericè indutâ.*

*Hab.* — ?

The peculiar, close, velvety epidermis of this shell is alone sufficient to distinguish it.

Mr. Fraser characterized two new species of Birds from Western Africa:—

**MUSCIPETA SMITHII.** *Musc. corpore pallidè rufo; caudâ, alisque nigrescentibus, cinereo-lavatis; capite, collo, rostro, pedibusque nigris.*

Long. tot.  $7\frac{1}{2}$  unc.; *alæ*, 3 unc. 4 lin.; *rostri*, a rictu ad apicem, 10 lin.; *caudæ*, 3 unc. 10 lin.

*Hab.* Western Africa.

The dimension above given of the tail of this bird includes the two central feathers, which are about half an inch longer than either of the others; these latter, when spread out, form a segment of a circle, the outermost feathers being the shortest. The head and neck are glossy black, but in certain lights exhibit a slight bluish tint: the whole body and wing-coverts are of a rust-colour, for the most part pale, but assuming a decided and rich hue on the abdomen; the tail and feathers of flight in the wings are of a deep brownish gray, but inclining to black. The bill is stout.

**TRERON CRASSIROSTRIS.** *Trer. viridis*; capite, collo pectoreque cinerascanti-viridibus; ventre citrino; alarum tectricibus regione carpali vinaceo-purpureis; remigibus fusco-nigrescentibus; cauda nigra ad apicem latè cinereo-fasciatà; rostro magno, pedibusque pallidis.

Long. tot. 12 unc.; ala,  $6\frac{3}{4}$ ; cauda,  $4\frac{1}{4}$ ; rostri, 11 lin.

Hab. — ?

This species is remarkable for its stout bill, which is of a very pale grayish colour, tinted with yellow on the upper surface at the base. The vinaceous patch at the angle of the wing is but of small extent; the primaries, secondaries, and some of the greater wing-coverts are narrowly margined externally with bright yellow, and the vent and some of the under tail-coverts, as well as the greater portion of the feathers covering the thighs, are of the same colour; the larger under tail-coverts are of a reddish brown colour, and the feet are yellow.

Various specimens presented to the Society since the preceding Meeting were exhibited, and attention was particularly called to an extensive collection, consisting of 126 Bird-skins, presented by Walter Ewer, Esq., and some specimens of Sponges, &c., and twelve Bird-skins presented by the Society's Corresponding Member, E. L. Moore, Esq., of Newfoundland.

The exhibition of specimens from Sincapore and Borneo, presented by James Brooke, Esq., Corresponding Member, was resumed.

March 28, 1843.

William Yarrell, Esq., Vice-President, in the Chair.

A very perfect specimen of the Brain Coral was exhibited by Capt. Fayrer, and various specimens from the collection presented by James Brooke, Esq., Corresponding Member, were also laid before the Meeting.

The following descriptions of new Shells, from the collection of Captain Sir Edward Belcher, R.N., C.B., &c., by Richard Brinsley Hinds, Esq., Surgeon R.N., were read :—

The great accession of species to the genus *Pleurotoma*, as left by Lamarck, renders it necessary that our views respecting it should receive some modification. A very prominent circumstance is, that the frequent repetition of previously trivial characters has elevated them to a situation of importance, and they are thus liable to become the distinctive grounds of new and characteristic groups. I commenced my examination with the species collected in the Sulphur, being about 120 in number; and subsequently I have had the opportunity of extending my researches among the extensive collection assembled together by Mr. Lovell Reeve, from the cabinets of various conchologists, but particularly from that of Mr. Hugh Cuming, the whole amounting in all probability to more than three hundred species. It is not my intention to attempt anything like a monograph of the group, but as it was necessary to make an extensive revision of the subject, to place the species in my hands in their proper position, I trust I shall be doing a service by recording the views which became developed in the prosecution of the work. I shall, however, confine my remarks to those genera, the mention of which is necessary to the elucidation of my species.

#### PLEUROTOMA, Lamarck.

A beautiful genus, presenting the typical characters of the group in their intensity, and capable of being satisfactorily defined. It consists of shells which are elongated and fusiform, having the spire and canal most frequently nearly equal in length; the sinus a slit, usually anterior to the most prominent part of the whorl, with a sharp margin; aperture oval; canal straight, and almost constantly lengthened; outer lip thin, smooth within, usually crenulated on the margin, from the termination of the lesser keels; inner lip rarely produced; sculpture generally transverse. The species are rarely found beyond the tropics, and do not abound in individuals, being found few in number: they are nearly equally abundant in the American and Asiatic Seas, but are remarkably absent from the Pacific Ocean. They never occur on the shores, being always obtained



from deep water, and usually on a muddy bottom; to this latter circumstance is probably attributable their singular absence from the Pacific, where coral prevails.

**PLEUROTOMA NOBILIS.** *Pleur. testâ fusiformi, solidâ, rugosâ; anfractibus supernè concavis, leviter striatis, propè mediam carinâ maximâ, infernè, præcipuè ultimo, carinis parvis alternantibus; suturâ simplici; labio externo subintegro, interno infernè paululùm producto; epidermide pallidè fuscâ indutâ. Axis 44 lin.*

*Hab.* San Blas, Mexico. From seven fathoms; mud.

This is a very considerably larger shell than *P. oxytropis*, but in the character of the sculpture they closely approach each other. It is chiefly distinguishable from it in the absence of any keel between the principal keel and the suture, and in some minor characters.

**PLEUROTOMA GEMMATA.** *Pleur. testâ fusiformi, elongatâ, gracillimâ, fuscâ; anfractibus numerosis, medio uniseriatim tuberculato-carinatis; tuberculis rectis, subquadratis, albidis; carinis duabus, parvis, suturam comitantibus, anfractu ultimo multicarinatis; sinu laterali ponè carinam; aperturâ ovali; canali elongatâ. Axis 9 lin.*

*Hab.* Gulf of Magdalena, California. Obtained from seven fathoms, among sandy mud.

**PLEUROTOMA JUBATA.** *Pleur. testâ fusiformi, acuminatâ, lævigatâ, fulvâ; anfractibus medio carinatis, supernè granulis uniseriatim cinctis, infernè carinâ parvâ unicâ, sed ultimo pluribus; suturâ carinatâ; canali breviusculo. Axis 12 lin.*

*Hab.* The China Sea and north coast of Sumatra: dredged from a muddy bottom in eighteen fathoms.

**PLEUROTOMA STOLIDA.** *Pleur. testâ fusiformi, lævigatâ, cornedâ; anfractibus supernè planulatis, infernè costatis; costulis albidis, brevibus, obliquis, in anfractu ultimo evanidis; apice papillari; suturâ simplici; canali brevi; labio externo tenui. Axis 14 lin.*

*Hab.* Lagulhas Bank, Cape of Good Hope: dredged from a depth of forty-three fathoms.

**PLEUROTOMA GRAVIS.** *Pleur. testâ fusiformi, lævigatâ, cornedâ; anfractibus propè suturam angulatis, uniseriatim tuberculis parvis albidis cinctis, supernè latè planulatis; anfractu ultimo coarctato; apice papillari; suturâ simplici, ferè occultâ, canali brevi; aperturâ fuscâ. Axis 11 lin.*

*Hab.* Lagulhas Bank, Cape of Good Hope; in company with the preceding.

**PLEUROTOMA INERMIS.** *Pleur. testâ ovatâ, acuminatâ, inermi; anfractibus subrotundatis, flammis undosis fuscis longitudinaliter ornatis, transversim striatis; suturâ simplici; aperturâ ovali; canali brevi. Axis 15 lin.*

*Hab.* Bay of Magdalena, California. From seven fathoms; sandy mud.

**PLEUROTOMA VIOLACEA.** *Pleur. testâ elongatâ, acuminatâ, violacê; anfractibus decenis multicarinatis, longitudinaliter minutissimè et creberrimè striatis; carinis duabus eminentioribus; labro tenui, acuto, crenulato; sinu laterali inter carinas; aperturâ ovali; columellâ biplicatâ; canali brevi.* Axis 8 lin.

*Hab.* North coast of New Guinea and Straits of Macassar. From seven to twenty-two fathoms; sandy mud. Also collected by Mr. Cuming at the Philippines.

The folds on the columella, for which this species is remarkable, are not to be met with in all the specimens.

**PLEUROTOMA RADULA.** *Pleur. testâ pyramidalî, acuminatâ, corned; anfractibus nonis, lineis decussatis, uniseriatim tuberculatis; tuberculis sublunatis; labro tenui, acuto; sinu laterali ponè seriem tuberculorum; suturâ lineâ elevatâ instructâ; aperturâ ovali; canali brevi.* Axis 7 lin.

*Hab.* Straits of Malacca. In seventeen fathoms; mud.

#### CLAVATULA, Lamarck.

The shells of this genus are subfusiform or clavate; the canal sometimes so short as to be almost wanting, at others somewhat produced and recurved; sinus superior to the most prominent part of the whorl, with a callous everted margin; inner lip often produced; suture frequently embellished; sculpture nearly always longitudinal; outer lip with a slight inferior sinus. This genus is rather less tropical in its geographical relations than *Pleurotoma*. In attempting to trace the *limits of variation*, it may be observed that the canal is liable to fluctuate in length, as may be seen in *C. duplicata*, Sow. (sp.); also in the length of the spire. Varieties in colour are not infrequent, and have been remarked in the above species, in *C. flavidula*, Lamarck (sp.), and in *C. crenularis*, Lamarck, each of which has light and dark varieties. Lastly, the series of tubercles which some display are usually connected by a keel, and the particular sculpture fluctuates between each, as occurs in a remarkable manner in *C. cincta*, Sow. (sp.)

**CLAVATULA MILITARIS.** *Clav. testâ turritâ, elongatâ, acuminatâ, albidâ; anfractibus supernè concavis et angulatis, plicis numerosis longitudinalibus, granosis lineis decussatis; propè suturam carind subnodosâ instructâ; labro intùs lævi; aperturâ lineari, in canali brevi recurvo desinente.* Axis 20 lin.

*Hab.* Veragua, Central America; in eighteen fathoms. Panama; in from eight to thirty fathoms; mud.

**CLAVATULA SINENSIS.** *Clav. testâ fusiformi, acuminatâ, corned; anfractibus undenis, subplanulatis, medio costulatis, lineis fuscis decussatis; suturâ granoso-carinatâ; labro intùs lævi; aperturâ ovali; canali mediocri.* Axis 9 lin.

*Hab.* New Guinea; Straits of Macassar; China Sea. In from five to twenty-one fathoms; mud.

**CLAVATULA SPICATA.** *Clav. testâ fusiformi, albidâ; anfractibus octonis, costulatis, transversim striatis; costulis subacutis; suturâ granulosa; labro intus lævi, aperturâ lineari; canali brevi; anfractibus ultimi dorso fusco picto.* Axis 6 lin.

*Hab.* Bow Island. Among the fine coral sand.

**CLAVATULA ROBUSTA.** *Clav. testâ fusiformi, acuminatâ, albidâ; anfractibus undenis, lævigatis, angulatè costulatis, lineis elevatis decussatis; costulis propè mediam angulatis; suturâ simplici; labro crenato, intus lævi; aperturâ ovali; canali mediocri.* Axis 8 lin.

*Hab.* Hong-Kong, China. In from four to seven fathoms; sandy mud.

**CLAVATULA SPURCA.** *Clav. testâ ovatâ, acuminatâ; anfractibus octonis, rotundatis, costulatis, lineis duabus vel tribus elevatis fuscis decussatis, minutissimè transversim striatis; suturâ simplici, labro juxtâ incrassato, intus crenulato; aperturâ ovali; canali mediocri.* Axis 5 lin.

*Hab.* New Guinea; Straits of Malacca. In from five to eighteen fathoms; mud.

**CLAVATULA RAVA.** *Clav. testâ ovatâ, acuminatâ; anfractibus octonis, rotundatis, costulatis, transversim striatis; costulis rotundatis, suturam incurrentibus; infrâ suturam purpureo spiraliter fasciatâ, anfractu ultimo iteratâ; labro intus crenulato; aperturâ ovali; canali brevi.* Axis 5 lin.

*Hab.* Gulf of Nicoya, Central America. In eighteen fathoms; mud.

**CLAVATULA ERICEA.** *Clav. testâ fusiformi, acuminatâ, pallidâ, nitidâ; anfractibus octonis, rotundatis, costulatis; costulis granulosis lineis elevatis decussatis, suturam incurrentibus; interstitiis lævigatis; suturâ simplici; labro juxtâ incrassato, intus lævi; aperturâ subovali; canali brevi.* Axis 5 lin.

*Hab.* Magnetic Island, Coast of Veragua. From twenty-six fathoms; mud.

**CLAVATULA DEBILIS.** *Clav. testâ fusiformi, elongatâ, acuminatâ, gracili; anfractibus octonis, rotundatis, costulatis, transversim striatis; costulis parvis, rotundatis, approximatis, suturam incurrentibus; suturâ simplici; labro intus crenulato; aperturâ obliquâ; sinu laterali propè suturam; canali mediocri.* Axis  $4\frac{1}{2}$  lin.

*Hab.* New Guinea; Straits of Macassar.

**CLAVATULA SCALARIS.** *Clav. testâ fusiformi, acuminatâ; anfractibus septenis, rotundatis, scalariformibus, transversim striatis; costulis rotundatis, distantibus, suturam incurrentibus; suturâ simplici; labro arcuato, intus lævi; sinu laterali propè suturam; aperturâ ovali; canali brevi.* Axis 7 lin.

*Hab.* Straits of Macassar. In twelve fathoms; coarse sand.

**CLAVATULA SCULPTA.** *Clav. testâ fusiformi, elongatâ, acuminatâ;*

*anfractibus decenis, rotundatis, costulatis, transversim striatis, fusco fasciatis; costulis rotundatis, propè suturam desinentibus, suturâ strii arcuatis instructâ; sinu laterali propè suturam, marginibus acutis; aperturâ ovali; canali mediocri. Axis 7 lin.*

*Hab.* Panama. From seven fathoms; mud.

*CLAVATULA AMABILIS. Clav. testâ ovatâ, turrîtâ, pallide aurantiacâ; anfractibus septenis, subrotundatis, costulatis, transversim striatis; costulis rotundatis, subdistantibus; suturâ maculis albis ornatâ; anfractu ultimo fasciâ albâ angustâ cincto; sinu laterali pone suturam; aperturâ ovali; canali mediocri. Axis  $3\frac{1}{2}$  lin.*

*Hab.* Straits of Malacca. From seventeen fathoms; mud.

*CLAVATULA CINEREA. Clav. testâ ovatâ, acuminatâ, anfractibus septenis, longitudinaliter tuberculato-costatis, transversim striatis; costulis anfractûs ultimi furcatis; suturâ lineis arcuatis instructâ; labro incrassato intûs et cum columellâ crenulato; aperturâ ovali, obliquâ; canali breviusculâ. Axis 8 lin.*

*Hab.* — ?

*CLAVATULA ARGILLACEA. Clav. testâ ovatâ, acuminatâ, lævigatâ, cornedâ; anfractibus septenis, tuberculato-costatis; costulis supernè angulatis, anfractûs ultimi evanidis; sinu laterali magno; labro incrassato intûs et cum columellâ crenulato; aperturâ ovali, elongatâ; canali breviusculo. Axis 6 lin.*

*Hab.* Straits of Malacca. From 17 fathoms; mud.

*CLAVATULA RUBIDA. Clav. testâ ovatâ, acuminatâ, rufâ, anfractibus septenis, rotundatis, costatis, transversim striatis; costis rotundatis, latis, suturam simplicem incurrentibus, labro subincurvo, intûs dentato; aperturâ ovali, oblongâ, sinu laterali propè suturam; canali brevi. Axis 7 lin.*

*Var. Nigro et albo fasciatâ.*

*Hab.* New Guinea. From seven fathoms; mud. The variety is from New Ireland: among coarse sand at low water. Also collected by Mr. Cuming at the Philippines.

*CLAVATULA LUCTUOSA. Clav. testâ ovatâ, acuminatâ, nigricante, crassâ; anfractibus nonis, lævigatis, supernè subplanulatis, propè mediam uniseriatim tuberculatis; suturâ simplici; sinu laterali posticali; labro paululùm incrassato, intûs lævi; aperturâ fuscâ, ovali; canali brevi. Axis  $7\frac{1}{2}$  lin.*

*Hab.* Bay of Guayaquil; Gulf of Magdalena, California. In from five to twenty-two fathoms.

*CLAVATULA ASPERA. Clav. testâ subclavatâ, acuminatâ, fuscâ vel nigricante; anfractibus septenis, rotundatis, costulatis, lineis elevatis decussatis; suturâ lined elevatâ instructâ; labro paululùm incrassato, intûs lævi; aperturâ fuscâ, ovali; canali brevi. Axis 4 lin.*

*Hab.* Guayaquil. In five fathoms; mud. North coast of New Guinea.

**CLAVATULA CEBRICOSTATA.** *Clav. testâ ovatâ, acuminatâ; anfractibus senis, pliciferis, albidis, supernè fusco fasciatis; plicis parvis, numerosissimis, obliquis, confertis; suturâ simplici; sinu laterali amplo; labro tenui, acuto, intùs lævi; aperturâ latè ovali; canali subnullo. Axis 3 lin.*

*Hab.* Cape Blanco, Africa. In seventeen fathoms.

**CLAVATULA PLUMBEA.** *Clav. testâ ovatâ, attenuatâ, lævigatâ, pallidâ, fusco fasciatâ; anfractibus septenis, subrotundatis, costulatis; costulis rotundatis, numerosis, suturam simplicem incurrentibus; anfractu ultimo fasciis duabus cinctis, labro intùs lævi, aperturâ ovali. Axis 5 lin.*

*Hab.* Bay of Magdalena, California. From five fathoms.

**CLAVATULA OCCATA.** *Clav. testâ fusiformi, attenuatâ, gracili, cornuâ, angulatè costatâ; anfractibus septenis, transversim exaratis; suturâ simplici; aperturâ brevi, lineari; canali mediocri. Axis  $4\frac{1}{2}$  lin.*

*Hab.* Magnetic Island, west coast of Veragua.

**CLAVATULA BELLA.** *Clav. testâ fusiformi, attenuatâ, gracili, lævigatâ, pallidè fuscâ; anfractibus octonis, rotundatis, costulatis, lineis albidis elevatis decussatis, supernè fusco fasciatis, ultimo attenuato; costulis gracilibus, granulis parvis sparsis instructis, suturam simplicem incurrentibus; labro intùs lævi; aperturâ ovali, in canali brevi attenuato. Axis  $5\frac{1}{2}$  lin.*

*Hab.* West coast of Veragua: from thirty fathoms; mud. Gulf of Papagayo, Central America: from eight to fourteen fathoms; mud.

**CLAVATULA PUDICA.** *Clav. testâ fusiformi, acuminatâ, nitidissimâ; anfractibus nonis, albidis, propè suturam paululùm lævigatis, infernè tuberculato-costulatis; costulis obliquis, acutis; suturâ simplici; anfractu ultimo anticè costulis acutis obliquis instructo, posticè lævigato maculo amplo fusco picto; sinu laterali profundo; labro acuto, intùs lævi; aperturâ ovali; canali mediocri effusâ. Axis 6 lin.*

*Hab.* Gulf of Papagayo, Central America. From eight to fourteen fathoms; mud.

**CLAVATULA LETA.** *Clav. testâ subclavatâ, acuminatâ, nitidissimâ; anfractibus nonis, supernè planulatis, medio uniseriatim tuberculatis, ultimâ serie secundâ parvâ; tuberculis distinctis, erectis, sub-acutis; suturâ simplici; labro acuto, intùs lævi; aperturâ ovali; canali brevi, effuso. Axis 6 lin.*

*Hab.* New Guinea; Straits of Macassar. From seven to ten fathoms.

**CLAVATULA NITENS.** *Clav. testâ clavatâ, excentricâ, fuscâ, nitidissimâ; anfractibus octonis, subangulatè costulatis, propè mediam prominentibus; costulis obliquis, acutis, suturam simplicem incurrentibus; labro acuto, intùs lævi; aperturâ latè ovali; canali brevi. Axis  $5\frac{1}{2}$  lin.*

*Hab.* New Guinea; Straits of Mucassar and Malacca. From seven to twenty-two fathoms.

*CLAVATULA CANDIDA.* *Clav. testá fusiformi, acuminatá, candidá; anfractibus septenis, costulatis, supernè subangulatis; suturá simplici; aperturá ovali, sinu laterali supernè valdè calloso, faucibus crenulatis; anfractús ultimi basi transversim striato.* Axis  $5\frac{1}{2}$  lin.

*Hab.* Magnetic Island, coast of Veragua.

*CLAVATULA PYRAMIS.* *Clav. testá clavatá, angulatè costatá, hexagond, transversim creberrimè striatá; sinu laterali superficiali; aperturá brevi, sublineari; canali brevi.* Axis 4 lin.

*Hab.* Straits of Macassar.

*CLAVATULA MERITA.* *Clav. testá ovatá, turritá, acuminatá, lævigatá, pallidá; anfractibus senis, plico-costulatis, supernè angulatis et lined fuscá spiraliter cinctis; suturá simplici; anfractús ultimi dorso fusco nebuloso, transversim striato; labro acuto, intùs lævi; aperturá oblongá; canali subnullo.* Axis 4 lin.

*Hab.* Gulf of Nicoya, Central America. Under stones at low water.

*CLAVATULA FLAMMEA.* *Clav. testá clavatá, albidá; anfractibus octonis, rotundatis, transversim striatis, flammulis fuscis, supernè angulatis, infernè subrectis, ornatis; spirá ecostulatá; suturá simplici; sinu laterali modo emarginatú; labro obtuso, lævissimè crenulato, intùs lævi; aperturá ad basin dilatatá; canali brevi, lato, recurvo.* Axis 7 lin.

*Hab.* New Ireland. Among coarse sand at low water.

*CLAVATULA FELINA.* *Clav. testá ovatá, acuminatá; anfractibus senis, subrotundatis, granulosis lineis transversis et longitudinalibus decussatis, maculis rufis quadratis et oblongis eleganter ornatis; suturá simplici; labro crenulato, subrecto; aperturá oblongá; canali brevi.*

*Hab.* New Ireland. Among coarse sand at low water.

*CLAVATULA PARDALIS.* *Clav. testá ovatá, lævigatá, nigricante; costulis fulvis apice ad basin decurrentibus; interstitiis striatá; aperturá oblongá, labro intùs crenulato; canali brevi.* Axis 2 lin.

*Hab.* Gulf of Nicoya. Under stones at low water.

*CLAVATULA CCELATA.* *Clav. testá ovatá, elongatá, atro-fuscá; anfractibus octonis, rotundatis, costulatis; costulis obliquis, acutis; suturá lined elevatá instructá; aperturá atrá, ovali; labro intùs lævi; canali subnullo.* Axis 3 lin.

*Hab.* Gulf of Fonseca. From twenty fathoms; mud.

*CLAVATULA PAPILLARIS.* *Clav. testá oblongá, lævigatá, pallidá; anfractibus quinis, rotundatis, obsoletè tuberculato-costulatis; apice papilloso; suturá simplici; aperturá brevi, ovatá; labro intùs lævi; canali subnullo.* Axis  $2\frac{1}{2}$  lin.

*Hab.* Straits of Malacca. From seventeen fathoms; mud.

**CLAVATULA RUBIGINOSA.** *Clav. testâ oblongâ, cornedâ; anfractibus senis, subrotundatis, transversim striatis; suturâ simplici; aperturâ brevi, ovatâ, cornedâ; labro intus lævi; canali subnullo.* Axis 3 lin.  
*Hab.* Straits of Malacca. From seventeen fathoms; mud.

**CLAVATULA POLITA.** *Clav. testâ valdè fusiformi, politâ, albidd; septangulatè costulata; costulis confluentibus; suturâ simplici; aperturâ ovali, oblongâ; labro acuto, intus lævi; canali longo, subrecurvo.* Axis 5 lin.

*Hab.* Straits of Macassar. Found among coarse sand in seven fathoms.

**CLAVATULA TEXTILIS.** *Clav. testâ ellipticâ, acuminatâ, albidd, anfractibus senis, costulatis, supernè angulatis; costulis rotundatis lineis elevatis decussatis, tribus propè mediam anfractûs ultimi fuscis; sinu laterali postico; aperturâ sublineari; labro intus crenulato; canali brevi.* Axis  $3\frac{1}{2}$  lin.

*Hab.* Straits of Macassar. From seven fathoms; sand.

**CLAVATULA FIMBRIATA.** *Clav. testâ ovatâ, pallidè rufâ, albo fasciatâ; anfractibus quinis, rotundatis, laminis brevibus, numerosis, dentatis, reflexis indutis; suturâ simplici; aperturâ ovali; sinu laterali minimo; labro crenulato, reflexo; canali brevi.* Axis  $3\frac{1}{2}$  lin.

*Hab.* North coast of New Guinea. From twenty-two fathoms; mud.

**CLAVATULA DONATA.** *Clav. testâ ovatâ, elongatâ, rosed; anfractibus octonis, costulatis, transversim striatis; costulis brevibus, rotundatis; suturâ lined nodosâ instructâ; aperturâ parvâ, ovali, rosed; labro intus lævi; canali brevi.* Axis  $3\frac{1}{2}$  lin.

*Hab.* North coast of New Guinea. From twenty-two fathoms; mud.

**CLAVATULA MICANS.** *Clav. testâ ovatâ, elongatâ, cornedâ, nitidâ; anfractibus octonis, costulatis; costulis subacutis, albidis, obliquis, supernè propè suturam evanidis; anfractûs ultimi dorso ecostulato; aperturâ parvâ, ovali; labro tenui, acuto, intus lævi; canali brevi.* Axis  $3\frac{1}{2}$  lin.

*Hab.* Gulf of Papagayo. From fourteen fathoms; mud.

**CLAVATULA ALBICANS.** *Clav. testâ ovatâ, elongatâ, albidd, nitidâ; anfractibus octonis, costulatis; costulis supernè subnodulosis; suturâ nodulosâ; sinu laterali pone suturam; aperturâ parvâ, ovali; labro acuto, intus lævi; canali brevi.* Axis  $2\frac{1}{2}$  lin.

*Hab.* Straits of Malacca. From seventeen fathoms; mud.

**CLAVATULA MUTICA.** *Clav. testâ subfusiformi, pallidè fulvâ; anfractibus senis, rotundatis, transversim striatis, maculis fuscis longitudinalibus ornatis; suturâ simplici; anfractu ultimo medio angulato et albo fasciato, ad basin fusco; sinu laterali justâ suturam; aperturâ ovali; labro acuto, intus lævi; canali brevi.* Axis  $3\frac{1}{2}$  lin.

*Hab.* Straits of Malacca. From seventeen fathoms; mud.

**CLAVATULA METULA.** *Clav. testâ ovatâ, acuminatâ; anfractibus quinis planulatis, obsolete costulatis, transversim striatis, pallidè rufo fasciatis; suturâ lined elevatâ instructâ; aperturâ lineari; labro subinflexo; canali subnullo.* Axis 2 lin.

*Hab.* — ?

**CLAVATULA TESSELLATA.** *Clav. testâ elongatâ, acuminatâ; anfractibus senis, subplanulatis, granulosis lineis longitudinalibus et transversis decussatis, maculis subquadratis fuscis pictis; suturâ simplici; aperturâ oblongâ; labro intus crenulato; canali brevi.* Axis 3 lin.

*Hab.* Straits of Macassar. From ten fathoms; coarse sand.

**CLAVATULA FULVA.** *Clav. testâ ovatâ, acuminatâ, fulvâ; anfractibus senis, granulosis, tuberculato-costulatis, supernè angulatis; suturâ lined granulosa instructâ; aperturâ parvâ, oblongâ; labro intus lævi; canali brevi effuso.* Axis  $2\frac{1}{2}$  lin.

*Hab.* Straits of Macassar. From ten fathoms; coarse sand.

**CLAVATULA DENTIFERA.** *Clav. testâ elongatâ, acuminatâ; anfractibus quinis, costulatis, lineis transversis decussatis; costulis numerosis, parvis, angustis, suturam incurrentibus; aperturâ oblongâ; labro crenulato, infernè dilatato et dentifero; columellâ infernè dente parvo; canali breviusculo.* Axis 3 lin.

*Hab.* North coast of New Guinea; Straits of Malacca. From five to seventeen fathoms; mud.

**CLAVATULA GLUMACEA.** *Clav. testâ elongatâ, pallidâ, nitidâ; anfractibus senis costulatis, transversim striatis; costulis brevibus, rotundatis, suturam simplicem incurrentibus; aperturâ oblongâ, fuscâ; labro intus lævi; canali breviusculo.* Axis 3 lin.

*Hab.* North coast of New Guinea. From twenty-two fathoms; mud.

**CLAVATULA QUISQUALIS.** *Clav. testâ fusiformi, acuminatâ, nitidissimâ; anfractibus octonis, supernè lævigatis, infernè costulatis; costulis brevibus, obliquis, acutis; lineis albis sinuosis longitudinaliter instructis; aperturâ ovatâ; sinu laterali rotundo; labro tenui, acuto, intus lævi; columellâ marginatâ; canali brevi, effuso, recurvo.* Axis  $4\frac{1}{2}$  lin.

*Hab.* Gulf of Papagayo, Central America. From eight to fourteen fathoms; mud.

**CLAVATULA RETUSA.** *Clav. testâ parvâ, obesâ, aurantiacâ; anfractibus septenis, costulatis, transversim striatis; costulis rotundatis, confertis; spirâ conicâ; suturâ simplici; apice purpureâ; aperturâ oblongâ; columellâ contortâ; canali breviusculo.* Axis  $2\frac{1}{2}$  lin.

*Hab.* Straits of Macassar. From ten fathoms; coarse sand.

**CLAVATULA IMPRESSA.** *Clav. testâ fusiformi, acuminatâ, rosâ; anfractibus nonis, tuberculato-costatis, transversim striatis; costulis acutis, obliquis, albidis; anfractibus ultimi dorso picto, ecostu-*



*lato; aperturâ ovali; labro tenui, acuto, intus levi; canali mediocri.*  
Axis  $4\frac{1}{2}$  lin.

*Hab.* Gulf of Papagayo, Central America. From eight to fourteen fathoms; mud.

*CLAVATULA NEGLECTA.* *Clav. testâ fusiformi, gracili, fusâ; anfractibus nonis, costulatis, lineis elevatis decussatis; costulis brevibus, rotundatis; suturâ lined elevatâ instructâ, infrâ propè levigatâ; aperturâ ovatâ, obliquâ; sinu laterali pone suturam; labro incrassato, inflexo; canali mediocri.* Axis 5 lin.

*Hab.* Gulf of Nicoya, Central America. Under stones at low water.

*CLAVATULA RIGIDA.* *Clav. testâ ovatâ, retusâ; anfractibus quinis, costulatis, supernè angulatis, transversim striatis; suturâ simplicî; aperturâ oblongâ, labro crenulato; columellâ rugosâ; canali brevi.* Axis  $2\frac{1}{2}$  lin.

*Hab.* Panama.

#### MANGELIA, Leach.

The shells of this group are distinguished by their small size, oval and attenuated shape, long linear mouth, terminated in a short canal, very slightly recurved; outer lip nearly straight, the immediate margin acute, but strengthened by the last-formed rib; above shouldered, with a slight emargination, which does not admit of being called a sinus, and with the margin not callous; apparently not formed before the full development of the shell; inner lip slightly produced; suture always simple; last whorl not at all inflated, and occupying one-half or more of the entire length; sculpture consisting of longitudinal fold-like ribs, terminating at the suture; very probably without an operculum, as Philippi observes that the animal of *Pleurotoma Bertrandi*, which belongs to this genus, is not provided with one. Restricted in this manner, a number of shells may be separated with advantage from the now bulky and somewhat incongruous genus *Pleurotoma*; and in this discrimination I have kept in view the *Mangelia Goodalii* of Leach, but have been by no means guided by the genus, as adopted by Risso.

*MANGELIA CINNAMOMEA.* *Mang. testâ attenuatâ, nitidâ, cinnamomeâ, albo fasciatâ; anfractibus senis, plico-costulatis, transversim levissimè striatis; faucibus crenulatis.* Axis  $4\frac{1}{2}$  lin.

*Hab.* North coast of New Guinea; Straits of Macassar; Straits of Malacca. From five to twenty-two fathoms; mud.

*MANGELIA CORONATA.* *Mang. testâ attenuatâ, acuminatâ; anfractibus senis, plico-costulatis, transversim striatis; costulis supernè subacuminatis; faucibus levibus.* Axis 4 lin.

*Hab.* Straits of Macassar.

*MANGELIA VITTATA.* *Mang. testâ attenuatâ, pallidâ, fusco fasciatâ; anfractibus senis, plico-costulatis, transversim striatis; costulis numerosis; faucibus crenulatis.* Axis  $3\frac{1}{2}$  lin.

*Hab.* Straits of Macassar. From ten fathoms; coarse sand.

**MANGELIA ORIZA.** *Mang. testâ attenuatâ, acuminatâ, lævigatâ, nitidâ, hexagonè plico-costulatâ; anfractibus septenis; faucibus lævibus.* Axis  $4\frac{1}{2}$  lin.

*Hab.* North coast of New Guinea. From twenty-two fathoms; mud.

**MANGELIA CELEBENSIS.** *Mang. testâ attenuatâ, lævigatâ, pallidâ, fusco latè fasciatâ; anfractibus senis, plico-costulatis; costulis subdistantibus; faucibus crenulatis.* Axis  $3\frac{1}{2}$  lin.

*Hab.* Straits of Macassar. From ten fathoms; mud.

Mr. Reeve then communicated his description of a new species of *Cyclostoma*, from the Cordilleras Mountains.

**CYCLOSTOMA STRAMINEUM.** *Cycl. testâ orbiculari, subdepressâ, stramineo-lutèd, spirâ versus apicem rosacèd; usquequaque elegantissimè striatâ, striis, ab umbilico exorientibus, diagonaliter collocatis; aperturâ ferè circulari, supernè subsinuatâ, peritremate simplici; operculo testaceo, albo, multi-spirali.*

Icon. Sowerby, Thesaurus Conch., pl. xxix. f. 211, 212.

*Hab.* Ad Meridam, Columbiæ Occidentalis. From the collection of H. Cuming, Esq.

This very peculiarly striated shell was lately found by a gentleman whilst searching for Orchidaceous plants at the base of the Cordilleras Mountains.

April 11, 1843.

William Yarrell, Esq., Vice-President, in the Chair.

Descriptions of ten new species of *Cancellaria*, from the collection of Sir Edward Belcher, by Mr. Hinds, were read.

**CANCELLARIA VENTRICOSA.** *Canc. testâ ovatâ, acuminatâ, albescente; anfractibus septenis, ventricosis, subturbinatis, cancellatis, interstitiis quadratis; aperturâ oblongâ, prope mediam dilatâ; labio interno expanso; columellâ triplicatâ; umbilico mediocri.*  
Axis 15 lin.

*Hab.* The west coast of America, between  $12^{\circ} 28'$  and  $24^{\circ} 38'$ , north latitude; viz. Realejo, in from sixty to seventy fathoms; San Blas; Gulf of Magdalena, California, in seven fathoms, sandy mud.

Very similar in its characters to *C. candida*, but distinguished from it in the absence of the secondary impressed lines which cross and interfere with the cancellation. *C. candida* is described with only two columellar folds, which might be regarded as another source of difference, our shell having three very distinct. But I think it will be found on close examination that the former has a third incipient fold, which, though very small, truly exists.

**CANCELLARIA URCEOLATA.** *Canc. testâ ovatâ, acuminatâ, lævigatâ, epidermide fusca indutâ; anfractibus septenis, costatis, supernè subangulatis, ultimo subquadrato; costis parviusculis, rotundatis, lineis elevatis decussatis; aperturâ oblongâ in canalem recurvum effusum desinente; labro subrecto, intus sulcato; labio interno expanso; columellâ biplicatâ, sed plicâ tertiâ inferiore obsoletâ; plicâ superiore in dente acuto desinente, sinu inferiore magno; umbilico parvo.* Axis 16 lin.

*Hab.* The west coast of America, between  $12^{\circ} 2'$  and  $21^{\circ} 32'$  north latitude; viz. Gulf of Papagayo, in from eight to fourteen fathoms; San Blas, in seven fathoms.

The elevations which cross this shell are remarkably disposed. If the finger-nail is driven over the shell, from the base towards the apex, it meets with no resistance, but if in the contrary direction it is obstructed at every elevation. The squareness of the last whorl and the straight outer lip have a mutual relation, since they are dependent on each other; and these characters, taken collectively, will be of value in making a diagnosis between nearly allied species.

**CANCELLARIA ALBIDA.** *Canc. testâ oblongâ, subattenuatâ, cancellatâ, albescente; anfractibus septenis, interstitiis transversis vel subquadratis; aperturâ oblongâ; labro acuto, intus sulcato; columellâ biplicatâ, plicâ tertiâ inferiore obsoletâ; umbilico minimo, subocculto; canali mediocri, contorto.* Axis 13 lin.

No. CXXIII.—PROCEEDINGS OF THE ZOOL. SOC.

*Hab.* The west coast of America, between 2° 47' south, and 9° 55' north latitude; viz. Bay of Guayaquil, Panama, and Veragua, in from seven to twenty-three fathoms.

**CANCELLARIA CREMATA.** *Canc. testâ oblongâ, subattenuatâ, fuscâ, lucidâ; anfractibus quinis, cancellatis, interstitiis magnis, transversis vel subquadratis; aperturâ oblongâ, supernè plicâ unicâ; labro intûs sulcis subdistantibus, labio interno expanso; columellâ triplicatâ; umbilico mediocri; canali breviusculo.* Axis 10 lin.

*Hab.* Bay of Panama; from a muddy bed in from four to ten fathoms.

The figures in the 'Conchological Illustrations,' *Cancellaria* 9 and 10, appear to me to represent two distinct species, both of which were collected in the Sulphur. Fig. 10 corresponds more closely with the description of *C. indentata*, and to this I would limit the species. The opinion which I had formed from the specimens in my own possession, became fully confirmed in the examination of those in Mr. Cuming's collection, and a fine shell belonging to him enables me to enrich the description. It may be desirable to remark that M. Kienner has copied both figures, and assigns them to one species.

**CANCELLARIA CORRUGATA.** *Canc. testâ bucciniformi, fuscâ; anfractibus quaternis, subventricosis, rugis parvis longitudinalibus confertis indutis, lineis impressis decussatis; aperturâ oblongâ, fuscâ; labro intûs sulcato; columellâ plicis duabus albidis instructâ; umbilico nullo; canali mediocri.* Axis 8 lin.

*Hab.* Bay of Guayaquil. From seven fathoms; mud.

**CANCELLARIA ELATA.** *Canc. testâ ovatâ, elongatâ, acuminatâ; anfractibus septenis costatis, supernè angulatis, lineis elevatis decussatis; suturâ profundâ; aperturâ ovali; peritremate supernè disjuncto; labro intûs sulcato; columellâ triplicatâ, plicâ inferiore maximâ; umbilico parvo, suboculto; canali inflexo.* Axis 9 lin.

*Hab.* A single specimen was obtained at Panama, from thirty fathoms.

This shell will always be readily distinguished by its elongated form, shouldered ribs, and by the remarkable circumstance of the plaits on the columella being reversed in size, the inferior being the largest.

**CANCELLARIA FUNICULATA.** *Canc. testâ ovatâ, elongatâ; anfractibus senis, costatis, supernè subangulatis; costis subdistantibus elevatis, rotundatis, nodulosis, lineis elevatis decussatis; suturâ profundâ; labro intûs sulcato; columellâ plicis tribus parvis; umbilico marginato; canali subnullo.* Axis 8 lin.

*Hab.* A single specimen only was obtained by the dredge from seven fathoms, sandy mud, in the Gulf of Magdalena, California.

**CANCELLARIA BICOLOR.** *Canc. testâ retusâ, contabulatâ, fusconigricante; anfractibus septenis, angulatis, procul costatis; costis acutis, lineis elevatis distantibus decussatis; aperturâ trigonâ,*

*supernè callositate alba; labro reflexo, intus sulcato; columella triplicatâ; umbilico magno.* Axis 11 lin.

*Hab.* Straits of Macassar; from ten fathoms, coarse sand. Mr. Cuming obtained specimens at the Island of Corregidor, Bay of Manila, from seven fathoms, also in coarse sand. A banded variety was obtained in the same locality.

A nearly allied species is the American shell, *C. rigida* of Sowerby; but the present is a larger shell, with sharper distant ribs, crossed at regular distances by slightly elevated lines, and the peritreme is not crenulate. The ribs of *C. rigida* are nodulous from the crossing lines, which are also disposed to rugosity throughout. In *C. bicolor* the lines are particularly regular and uniform in their characters. This is one of several species which were obtained both in the Sulphur and by Mr. Cuming in the Asiatic seas. It is worthy of remark, that the specimens from the seas about the Philippines are uncommonly fine, and the use of them permits me to complete my descriptions more fully, and to note with more accuracy their geographical diffusion.

*CANCELLARIA LAMELLOSA.* *Canc. testâ ovatâ, acuminatâ, pallidâ, contabulatâ; anfractibus senis, ventricosis, lamellis numerosis confertis, crenatis, in loco costarum instructis; aperturâ trigonâ; labro incrassato, reflexo; columella plicis tribus parvis; umbilico magno; canali subnullo.* Axis  $7\frac{1}{2}$  lin.

*Hab.* This species has an extensive habitat, being found in several places in the Indian Archipelago and at the Cape of Good Hope. At the latter a single specimen was obtained on the Lagulhas Bank in seventy fathoms; also at Ceylon and in the Straits of Macassar. Mr. Cuming also procured specimens in seven fathoms, coarse sand, at the Island of Corregidor, in the Bay of Manila.

Corresponding to the customary situation of the ribs, this species throws off series of lamellæ, two or more in number, which present a sharp, reflected, crenated margin. These are clustered together in very irregular numbers, sometimes there being only two, or perhaps even one; but as the shell advances in age they are usually crowded together in some numbers, and this remarkable and elegant character will readily distinguish it from any other species.

*CANCELLARIA ANTIQUATA.* *Canc. testâ ovatâ, acuminatâ, contabulatâ, albidâ; anfractibus septenis, planulatis, costatis, transversè striatis; costis acutis, supernè spinis cavis desinentibus; aperturâ trigonâ; labro reflexo; columella plicis tribus minimis; umbilico maximo.* Axis 7 lin.

*Hab.* New Guinea; in twenty-two fathoms, coarse sand. Also obtained by Mr. Cuming at the island of Corregidor, Bay of Manila, in seven fathoms, coarse sand.

A species nearly allied to the singular *C. trigonostoma*, having a similar relative situation of the whorls to each other, and a very large umbilicus. This is a smaller shell, with a shorter spire, and sutures less profound.

A letter from Mr. J. E. Gray, addressed to the Curator, was read. This letter refers to some species of Bats from Jamaica, which Dr. Richard Parnell had sent to Mr. Gray. Among these, Mr. Gray observes, are some specimens of the genus *Macrotis*, a genus which he had recently established upon a Bat from Hayti, showing that this form is likewise extended to Jamaica.

"The collection also contains a specimen of *Arctibeus Jamaicensis*, Leach, and some specimens of a new genus, which is very interesting, as being a Noctilionine Bat, with an apparent nose-leaf, bearing a much greater resemblance to the Leaf-nosed Bats (*Phyllostomina*) than even *Mormoops*, which, when he first described it, Dr. Leach referred to that group. Indeed at first sight I was inclined to regard the new bat as belonging to the Leaf-nosed Bats; but on examination I found that the nostrils, instead of being placed on the leaf-like process, which is the character of that group, were on the under side of the nose-keel, and quite separate from it.

"This genus may for this reason be called *Phyllodia*, and it is thus characterized:—

"Head moderate; nose rather produced, with a sharp-edged transverse keel, with the nostrils on the lower side of the keel, and an ovate, lanceolate, fleshy process on the middle of the upper surface; chin with a single, transverse, membranaceous fold, surrounding a triangular group of many small warts; ears lateral; tragus distinct; wings long, rather narrow; thumb moderate, lower joint rather shortest; wing from the upper part of the ankle; interfemoral membrane large, truncated; heel-bone long, strong; tail enclosed, half as long as the membrane, with the tip above it, and with a vessel from each side of its tip to the hinder margin of the membrane.

"These characters show that this genus has much resemblance with *Mormoops*, and especially *Chilonycteris*, but it differs from the former in having no transverse membranaceous fold on the face, and from the latter, with which it agrees in having a membranaceous fold across the chin, in having a fleshy, erect, leaf-like expansion on the upper surface of the nose, which is wanting in that genus."

Mr. Gray proposes to name this species after Dr. R. Parnell, so well known for his works on the fishes and grasses of Scotland.

PHYLLODIA PARNELLII. *Phyll. auribus magnis, subacutis; vellere cinerascens-fusco, pilis ad apicem obscurioribus.*

The following note on the Spermatozoa of the Camel (*Camelus Bactrianus*, Linn.), by Mr. Gulliver, was then read:—

"In my observations on the Semen and Seminal Tubes of Mammalia and Birds, published in the Proceedings of the Society, July 26, 1842, I have noticed the form of the spermatozoa of the Dromedary. As I am not aware that the seminal animalcules of the Camel and Dromedary have yet been described, I now exhibit drawings of them to the Society.

"Although the blood-corpuscles of the *Camelidae* have the same form as the blood-corpuscles of oviparous vertebrate animals, it will be observed that the Camel, like the Dromedary, has spermatozoa of the

same type as the spermatozoa of other Mammalia, several of which are figured in Professor Wagner's excellent 'Elements of Physiology,' translated by Dr. Willis, part i. page 11."

Various specimens presented to the Society since the previous Meeting were laid on the table; they consisted of a very valuable collection of insects from the interior of South Africa, presented by the President, the Earl of Derby; a specimen of a *Manis* from China, presented by the Honourable Sir Alexander Johnstone; and a series of Insects, Birds' Eggs, &c., collected at Samsoon and Erzerroom by the Society's Corresponding Members, E. D. Dickson, Esq., and H. J. Ross, Esq. This last-mentioned collection also contained a specimen of the European Green Woodpecker (*Picus viridis* of authors), and of the Common Pheasant (*Phasianus colchicus*, Linn.).

Mr. Fraser exhibited a specimen of a Pouched Rat (*Cricetomys Gambianus*) and various species of Birds which he had procured on the western coast of Africa during the Niger expedition, and read the following notes relating to them:—

*Cricetomys Gambianus*, Wat. Lives in holes in the ground, more abundantly under the storehouses, where of a night they may be heard squeaking and fighting, similar to our common Rat (*Mus decumanus*, Linn.); they climb the paw-paw trees and feed on the fruit as it hangs: the cheek-pouches contained paw-paw seeds. Caught in iron gins baited with boiled yam. The natives set great store on this animal, its flesh being considered the greatest delicacy that can be offered at a wedding-feast.

*Hab.* Clarence, Fernando Po. Common.

*Neophron niger*, Less., *Cathartes monachus*, Temm. Pl. Col. 222.

Common in the neighbourhood of Cape Coast Castle, living in the smaller trees near the houses.

*Hirundo leucosoma*, Swains. Jard. Nat. Lib. vol. (Orn.) viii.; B. of W. Africa, page 74, 1837.

*Hab.* Accra. Very common.

*Ispida bicincta*, Swains. Jard. Nat. Lib. vol. (Orn.) viii.; B. of W. Africa. Common; seen in flocks of six or eight, making a continual chattering noise as they fly; this species dives into the salt as well as fresh water, sometimes from the height perhaps of twenty feet; I have seen them hover over their scaly prey like a kestrel.

*Hab.* Fernando Po and river Niger, as far up as Iddah.

*Macronyx flavigaster*, Swains. Jard. Nat. Lib. vol. (Orn.) vii.; B. of W. Africa, p. 215, 1837.

*Hab.* Accra.

*Ploceus textor*, Cuv.

*Hab.* Cape Palmas, Cape Coast and Fernando Po.

At each of the above places I found this bird extremely common; they commit much mischief in the rice and Indian-corn plantations. As many as fifty pairs may be seen building their domed nests in one

tree, and in the neighbourhood of houses : they lay from four to five mottled eggs, varying as much in size, colour and markings as do our common Sparrow (*Pyrgita domestica*, Cuv.) ; they are extremely active and noisy, continuing fighting and chattering from daybreak to sundown : the nest is composed of coarse grass interwoven, sometimes fixed in a forked branch of a tree and at other times suspended.

*Ploceus brachypterus*, Swains. Jard. Nat. Lib. vol. (Orn.) vii. ; B. of W. Africa, p. 168. pl. 10, 1837.

*Hab.* Fernando Po.

Found in company with *P. textor*, living in the gardens round Clarence. Irides white.

*Ploceus personatus*, Vieill. Gal. des Ois. pl. 84.

*Hab.* Cape Coast.

*Euplectes oryx*, Swains., *Losia oryx*, Vieill.

*Hab.* Cape Coast. Common : frequents the Indian-corn plantations.

*Vidua chrysonota*, Swains. Jard. Nat. Lib. vol. (Orn.) vii. ; B. of W. Africa, p. 178, 1837.

*Hab.* Cape Palmas.

*Vidua erythrorhynchus*, Swains. Jard. Nat. Lib. vol. (Orn.) vii. ; B. of W. Africa, p. 176. pl. 12, 1837.

*Hab.* Cape Palmas. Common.

*Passer simplex*, *Pyrgita simplex*, Swains. Jard. Nat. Lib. vol. (Orn.) vii. ; B. of W. Africa, p. 208, 1837.

*Hab.* Cape Coast and Accra.

*Passer Jagoensis*, Gould. Voy. of Beag. (Birds) p. 95. pl. 31.

*Pyrgita Jagoensis*, Gould, Proc. Zool. Soc. 1837, p. 77.

*Hab.* St. Vincent's and St. Antonio, Cape Verde Islands (June).

*Lamprotornis chrysonotis*, Swains. Jard. Nat. Lib. vol. (Orn.) vii. ; p. 143. pl. 6, 1837.

*Hab.* Fernando Po.

Very shy : irides white, bill and legs black, nostrils large and open. Caws somewhat like a crow ; makes a burring noise like a parrot when beginning to fly ; lives in the loftiest trees. The gizzard contained small seeds and red berries. The sexes do not differ.

*Cuculus rubiculus*, Swains. Jard. Nat. Lib. vol. (Orn.) viii. ; B. of W. Africa, p. 181, 1837.

*Hab.* Fernando Po.

Very shy : irides red hazel, cere and legs bright yellow, base of both mandibles yellow, mouth red.

*Zanclostomus flavirostris*, Swains. Jard. Nat. Lib. vol. (Orn.) viii. ; B. of W. Africa, p. 183. pl. 19, 1837.

*Hab.* Fernando Po (June).

Somewhat like a magpie, jerking and bobbing its tail and making a carr-r-r-ring noise as it hops from branch to branch ; also a fast runner. A *mantis* found in the gizzard. Irides red, bill yellow, legs nearly black, cere turquois colour. The sexes do not differ.



*Centropus Senegalensis*, Ill., Swains. Jard. Nat. Lib. vol. (Orn.) viii.; B. of W. Africa, p. 185. pl. 20, 1837.

*Hab.* Cape Palmas and Accra.

Found on or near the ground.

*Peristera tympanisterra*, Temm.

*Hab.* Fernando Po (June).

A female was killed on the nest, which was composed of small roots, and contained two white eggs; the nest was placed on the broken part of a small tree, about three feet from the ground. Irides hazel, bill and feet reddish plum-colour.

*Chatopus Adansonii*, Swains. Jard. Nat. Lib. vol. (Orn.) viii.; B. of W. Africa, p. 217, 1837.

*Hab.* Central Africa.

This specimen was shot nearly opposite Iddah, about two hundred miles up the river Niger (August).

*Glareola torquata*, Temm.

*Hab.* Accra.

*Rhynchops Orientalis*, Rüppell, Atl. Zool. pl. 24.

*Hab.* Mouth of the river Nùn (August).

Mr. Fraser also called attention to two specimens of a species of *Manis*, which he laid before the Meeting. These, he observed, agreed in their characters with the species described by Mr. Gray in a communication read at the Meeting for February 28th of the present year, under the name *Manis multiscutata*. They were procured by Mr. Fraser at Fernando Po, and upon his return to England he had, upon comparing the specimens on the table with others of the *Manis tetradactyla*, perceived those differences upon which Mr. Gray founds the *M. multiscutata*. The animals, judging from their bones, were evidently not adult; the largest measured thirty inches in length, of which the head and body were twelve inches, and the tail eighteen inches. He had kept them alive for about a week at Fernando Po, and allowed them the range of a room, where they fed upon a small black ant, which is very abundant and troublesome in the houses and elsewhere. Even when first procured they displayed little or no fear, but continued to climb about the room without noticing his occasional entrance. They would climb up the somewhat roughly-hewn square posts which supported the building with great facility, and upon reaching the ceiling would return head foremost; sometimes they would roll themselves up into a ball and throw themselves down, and apparently without experiencing any inconvenience from the fall, which was in a measure broken upon reaching the ground by the semi-yielding scales, which were thrown into an erect position by the curve of the body of the animal. In climbing, the tail, with its strongly pointed scales beneath, was used to assist the feet; and the grasp of the hind feet, assisted by the tail, was so powerful, that the animal would throw the body back (when on the post) in a horizontal position and sway itself to and fro, apparently taking

pleasure in this kind of exercise. It always slept with the body rolled up; and when in this position in a corner of the building, owing to the position and strength of the scales and the power of the limbs combined, Mr. Fraser found it impossible to remove the animal against its will, the points of the scales being inserted into every little notch and hollow of the surrounding objects. The eyes are black and very prominent. The colonial name for this species of *Manis* is Attadillo, and it is called by the Booby, 'Gahlah.'

April 25, 1843.

No Meeting was held.

May 9, 1843.

William Yarrell, Esq., Vice-President, in the Chair.

Mr. Hinds proceeded with his descriptions of new species of Shells collected during the voyage of Sir Edward Belcher, C.B., and by H. Cuming, Esq., in his late visit to the Philippine Islands: those characterized in the paper read were laid on the table.

Genus CORBULA, Brugière.

**CORBULA CRASSA.** *Corb. testâ solidâ, incrassatâ, elevatâ, albidd, inæquilaterali, latere antico paululùm superante, longitudinaliter sulcatâ, anticè rotundatâ, posticè ad extremitatem truncatâ, ab umbone ad marginem posticam biangulatâ; valvarum margine ventrali inclausâ, gibbosissimâ, sinistrâ posticè denticulatâ; umbonibus obliquis, posticis; intùs fuscâ.* Long. 11; lat. 7; alt. 7 lin.

*Hab.* Straits of Macassar; Straits of Malacca; Sabonga, island of Zebu; Bais, island of Negros, Philippines. Obtained in from seven to thirty fathoms, on a floor of coarse sand or gravel.

*Cab.* Belcher et Cuming.

Remarkable for the preponderance of the bulk of the anterior half over the posterior, a circumstance which also occurs in *C. bicarinata*. This, however, depends in some measure on the age, and is thus most conspicuous in those specimens which may be considered as beyond adult age.

**CORBULA TUNICATA.** *Corb. testâ ovato-trigonâ, obliquâ, anticè rotundatâ, posticè nasutâ, excavatâ, ab umbonibus angulatâ; valvis inæqualibus, dextrâ præcipuè maximâ, valde sulcatâ, epidermide tenui corned indutâ, sinistrâ prope umbonem sulcatâ, aliter epidermide densâ indutâ; umbonibus obliquis posticis; intùs fuscâ.* Long. 12; lat. 7; alt. 9 lin.

*Hab.* Island of Corregidor, Bay of Manila; in seven fathoms, coarse sand. Straits of Macassar; Lagulhas Bank, Cape of Good Hope: from seventy fathoms, on a gravelly bottom.

*Cab.* Belcher et Cuming.

**CORBULA CUNEATA.** *Corb. testâ ovato-trigonâ, æquilaterali, solidâ, complanatâ, sulcatâ, anticè rotundatâ, posticè angulatâ; valvis subæqualibus, marginibus ventralibus gibbosis inclausis; umbonibus rectis; intùs purpurascete.* Long. 7; lat. 3; alt. 5 lin.

*Hab.* Catbalonga, Philippine Islands; from ten fathoms, soft mud. Lagulhas Bank, Cape of Good Hope; from seventy fathoms.

*Cab.* Belcher et Cuming.

**CORBULA PALLIDA.** *Corb. testâ ovatâ, tenui, elevatiusculâ, sulcatâ,*  
No. CXXIV.—PROCEEDINGS OF THE ZOOL. SOC.

*anticè rotundatâ, posticè ab umbonibus ad marginem posticam angulatâ, valvæ dextræ margine ventrali acutâ, inflexâ; umbonibus lævigatis, rectis; intus prope cardinem rosed. Long.  $7\frac{1}{2}$ ; lat. 3; alt. 5 lin.*

*Hab.* —?

*Cab.* Cuming.

**CORBULA SIMILIS.** *Corb. testâ ovatâ, solidâ, sulcatâ, anticè elevatiusculâ, rotundatâ, posticè ad marginem posticam obliquè truncatâ, ab umbonibus angulatâ; valvis inæqualibus, dextrâ margine ventrali subacutâ, productâ; umbonibus subobliquis; intus rosed, dente valvæ sinistræ bifido. Long. 6; lat. 8; alt. 4 lin.*

*Hab.* Island of Corregidor, Bay of Manila; in seven fathoms, coarse sand.

*Cab.* Cuming.

**CORBULA SCAPHOIDES.** *Corb. testâ oblongâ, ordinatè sulcatâ, interstitiis lævissimè striatis, anticè rotundatâ, posticè elongatâ, ad extremitatem obliquè truncatâ, ab umbonibus subcarinatâ; valvæ dextræ margine ventrali acutâ, productâ; umbonibus rectis. Long. 6; lat.  $2\frac{1}{2}$ ; alt.  $3\frac{1}{2}$  lin.*

*Hab.* Singapore; from seven fathoms, sandy mud. Bais, island of Negros, Philippines.

*Cab.* Cuming.

**CORBULA FRAGILIS.** *Corb. testâ ovatâ, tenui, albidd, striatâ, striis transversis minutissimè reticulatâ, anticè subproductâ, rotundatâ, posticè elongatâ, ab umbonibus subrotundatâ; valvæ dextræ margine ventrali acutâ, productâ; umbonibus rectis, lævigatis, æqualibus. Long. 7; lat. 3; alt. 4 lin.*

*Hab.* West coast of Veragua; from eighteen fathoms, mud.

*Cab.* Belcher.

**CORBULA ALBUGINOSA.** *Corb. testâ retuso-ovatâ, tenui, anticè rotundatâ, posticè subelongatâ, rotundatâ; valvis valdè disparibus, dextrâ longitrorsum striatâ, pallidd, margine ventrali productâ, acutâ, sinistrâ lævigatâ, lineis elevatis radiantibus, epidermide fuscâ indutâ; umbonibus albidis, nitidis, inæqualibus. Long.  $4\frac{1}{2}$ ; lat. 2; alt.  $3\frac{1}{2}$  lin.*

*Hab.* New Guinea; Straits of Macassar; from seven to twenty-two fathoms, mud and coarse sand.

*Cab.* Belcher.

**CORBULA ROYALIS.** *Corb. testâ oblongâ, corned, anticè rotundatâ, posticè subnasutâ; valvis valdè disparibus, dextrâ præcipuè marimâ, rotundatâ, sulcatâ, margine ventrali productâ, acutâ, sinistrâ parvâ, lineis decenis elevatis radiantibus; umbonibus valdè inæqualibus, subobliquis, anticis. Long.  $2\frac{1}{2}$ ; lat.  $1\frac{1}{2}$ ; alt.  $1\frac{1}{2}$  lin.*

*Hab.* Calapan, Mindora, Philippine Islands; from fifteen fathoms, coarse sand.

*Cab.* Cuming.

Several species of *Corbula* are provided with elevated lines radia-

ting from the umbo of the left valve towards the ventral margin, but none have them in such numbers, or so distinctly marked, as in the present small species. Here they are about ten in number, and with the great disparity of the valves, will readily distinguish the species.

**CORBULA POLITA.** *Corb. testâ oblongâ, ventricosâ, tenui, albidd, obsolete sulcatâ, anticè rotundatâ, posticè ab umbonibus subangulatâ; valvis ferè æqualibus, dextræ margine ventrali acutâ, subproductâ; umbonibus æqualibus, lævigatis, rectis.* Long.  $3\frac{1}{2}$ ; lat. 2; alt.  $2\frac{1}{2}$  lin.

*Hab.* Sorsogon, province of Albay, Luzon, Philippine Islands.  
*Cab.* Cuming.

**CORBULA QUADRATA.** *Corb. testâ quadratâ, albidd, tenui, lævigatâ, anticè rotundato-truncatâ, posticè rotundato-angulatâ, abbreviatâ; valvarum marginibus ventralibus tenuibus; umbonibus obliquis, anticus; dentibus parvis, gracilibus.* Long. 6; lat. ; alt. 5 lin.

*Hab.* —?

*Cab.* Metcalfe.

**CORBULA OBESA.** *Corb. testâ ovatâ, tenui, ventricosâ, pallidd, striatâ, anticè rotundatâ, posticè ad extremitatem truncatâ, ab umbonibus acutè angulatâ; valvarum marginibus ventralibus inclausis, gibbosis; umbonibus rectis, lævigatis.* Long. 3; lat. 2; alt. 2 lin.

*Hab.* The west coast of America, between  $8^{\circ} 57'$  and  $21^{\circ} 32'$  north latitude, in from twenty-two to thirty-three fathoms, mud; namely, Panama, coast of Veragua, and San Blas.

*Cab.* Belcher.

**CORBULA SPECIOSA.** *Corb. testâ ovato-trigond, anticè rotundatâ, posticè excavatè angulatâ, albidd, sanguineâ, densè multiradiatâ; valvis valde inæqualibus, marginibus ventralibus inclausis, dextrâ rotundatâ, sulcatâ, sinistrâ subplanulatâ, striatâ; umbonibus rectis, subplanulatis; intus albidd.* Long. 9; lat. 5; alt. 7 lin.

*C. radiata*, Sowerby, Proc. Zool. Society, p. 36, 1833.

*Hab.* Panama; from six fathoms, mud. Gulf of Nicoya, Central America.

*Cab.* Belcher et Cuming.

This shell has been described as *C. radiata*, Sow., a name previously assigned by M. Deshayes to a fossil species. The description also was drawn up from such an indifferent shell, that it was almost by accident I discovered it was to apply to my specimens. I have therefore been under the necessity of recording a new description.

**CORBULA MODESTA.** *Corb. testâ ovato-trigond, complanatâ, pallidd, radiatâ, profundè sulcatâ, anticè rotundatâ, posticè ad extremitatem truncatâ, ab umbonibus angulatâ; valvarum marginibus ventralibus inclausis; umbonibus parvis, subæqualibus, rosèis; intus rosèd.* Long. 7; lat.  $3\frac{1}{2}$ ; alt. 5 lin.

*Hab.* Straits of Macassar; from seven fathoms, coarse sand. Ticao, Philippine Islands; from eight fathoms, sandy mud. The Macassar specimens are of a dwarf size.

*Cab.* Belcher et Cuming.

**CORBULA SOLIDULA.** *Corb. testā parvā, ovatā, subtrigona, solidulā, elevatusculā, æquilaterali, sulcatā; anticē rotundatā, posticē angulatā; valvarum marginibus ventralibus inclausis, gibbosis; umbonibus rectis, lævigatis.* Long. 2; lat. 1; alt.  $1\frac{1}{3}$  lin.

*Hab.* Straits of Macassar; from seven fathoms, coarse sand. Bais, island of Negros, Philippines.

*Cab.* Belcher et Cuming.

**CORBULA MARMORATA.** *Corb. testā parvā, oblongā, solidulā, lævigatā, marmoratā, anticē rotundatā, posticē subangulatā; valvarum marginibus ventralibus inclausis; umbonibus obliquis, anticis; ante umbores sanguineo maculatā.* Long. 2; lat. 1; alt.  $1\frac{1}{3}$  lin.

*Hab.* West coast of Veragua; from twenty-six fathoms, mud.

*Cab.* Belcher.

**CORBULA EBURNEA.** *Corb. testā parvā, ovatā, subtrigona, eburneā, solidulā, complanatā, lævigatā, obsoletē sulcatā; margine ventrali gibbosā; umbonibus parvis, subrectis, nitidis; intus corned.* Long. 2; lat. 1; alt.  $1\frac{1}{3}$  lin.

*Hab.* North coast of New Guinea; Camaguing and Bohul, Philippine Islands: from seven to sixty fathoms, coarse sand and mud.

*Cab.* Belcher et Cuming.

This shell closely approaches *C. solidula*, but is distinguished by its somewhat more triangular shape, polished, ivory-like, flattened valves, and the slightly sulcate sculpture.

**CORBULA MONILIS.** *Corb. testā minutā, globosā, pallidā, striulatā; valvis valdē inæqualibus, dextrā multō maximā, posticē elongatā, margine ventrali acutā, productā; umbonibus rectis, lævigatis.* Long. 1; lat.  $\frac{2}{3}$ ; alt.  $\frac{2}{3}$  lin.

*Hab.* Sual, Luzon, Philippine Islands; from five to seven fathoms, sandy mud.

*Cab.* Cuming.

A small globose species remarkable for the inequality of the valves, the left being sunk into the right. The latter valve is also distinguished by the posterior nasute elongation.

**CORBULA FASCIATA.** *Corb. testā ovatā, subtrigona, lævigatā, pallidā, atro-fusco trifasciatā, anticē productā, rotundatā, posticē elongatā, ab umbonibus arcuatē angulatā; valvarum marginibus ventralibus acutis, convexis, dextræ productā; umbonibus rectis, suberosis.* Long.  $6\frac{1}{2}$ ; lat.  $2\frac{1}{2}$ ; alt. 4 lin.

*Var. Testā pallidā, posticē subproductiori.*

*Hab.* St. Juan, province of Illocos, and Agoo, province of Pangasinan, Luzon, Philippine Islands.

*Cab.* Cuming.

**CORBULA TRIGONA.** *Corb. testā trigona, lævigatā, pallidā, fuscā, vel obsoletē unifasciatā, anticē rotundatā, posticē abbreviatā, ab umbonibus angulatā; valvæ dextræ margine ventrali acutā, productā; umbonibus rectis.* Long.  $4\frac{1}{2}$ ; lat. 2; alt. 4 lin.

*Hab.* Senegal.

*Cab.* Cuming et Metcalfe.

**CORBULA LÆVIS.** *Corb. testd ovali, æquilaterali, pallidd, tenui, lævigatd, complanatd; valvæ dextræ margine ventrali acutd, productd; umbonibus rectis, suberosis.* Long. 6; lat.  $2\frac{1}{2}$ ; alt. 4 lin.

*Hab.* Hong-Kong, China.

*Cab.* Belcher et Cuming.

Both valves are flattened towards their ventral margins in a very characteristic manner.

**CORBULA FABA.** *Corb. testd ovali, subæquilaterali, elevatiusculd, tenui, lævigatd, pallidè fusco trifasciatd, posticè ab umbonibus angulatd; valvæ dextræ margine ventrali acutd, productd; umbonibus rectis, fragmentis epidermide tenui indutd.* Long. 5; lat.  $1\frac{3}{4}$ ; alt.  $2\frac{3}{4}$  lin.

*Hab.* St. Miguel, east coast of Luzon, Philippine Islands. Obtained in the mud at low water.

*Cab.* Cuming.

It is very probable that the four species last described affect situations where the water is brackish rather than salt; and though they retain the hinge of *Corbula*, in general character they materially differ from the more typical forms of the genus.

#### POTAMOMYA, J. Sowerby.

**POTAMOMYA NIMBOSA.** *Pot. testd ovato-trigond, lævigatd, anticè rotundatd, posticè productd, angulatd; valvis inæqualibus, margine ventrali acutd; umbonibus subæqualibus; epidermide tenui, tenebrosd, indutd, lineis capillaribus radiantibus; intùs albidd.* Long. 17; lat. 8; alt. 11 lin.

*Sowerby's Conch. Manual*, f. 498, 499.

*Hab.* The tributary streams of the Rio de la Plata, in the mud.

*Cab.* Cuming.

**POTAMOMYA OCREATA.** *Pot. testd valdè inæquilaterali, anticè abbreviatd, rotundatd, posticè productd, subnasutd, ab umbone ad marginem posticam angulatd; valvâ dextrâ rotundatd, margine ventrali anticè productd, acutd; epidermide fuscâ indutd; intùs albidd vel cærulescente.* Long. 13; lat. 6; alt. 8 lin.

*Hab.* Brazil. From freshwater streams.

*Cab.* Cuming et Metcalfe.

The younger specimens are much less inequilateral than the old.

The following descriptions of new species of Shells belonging to the genus *Cyclostoma*, by Mr. G. B. Sowerby, were then read.

**CYCLOSTOMA FUSILLUM**, nob., *Thes. Conch.* part 3. pl. 23. f. 55\*.  
*Cycl. testd orbiculari, subdiscoïdè; apice spiræ subprominulo; anfractibus quatuor, rotundatis, lineis incrementi solùm striatis; suturâ profundâ; aperturâ circulari, peritremate tenuiuseculo, subreflexo, posticè prope anfractum ultimum submarginato; umbilico patulo; operculo multispirali, extùs concavo, margine canaliculato, intùs nitido.*

Var. *a*. Found at the roots of shrubs and trees at Calauang, isle of Luzon, by H. Cuming.

Var. *b*. Found under decayed leaves in the isle of Negros, by H. Cuming.

*CYCLOSTOMA RUFESCENS*, nob., Thes. Conch. part 3. pl. 24. f. 36, 37. *Cycl. testd suborbiculari, rufescente, spirid brevi, anfractibus quatuor, rotundatis, spiralièr costellatis et striatis, costellis crenulatis; suturâ profundâ; aperturâ circulari, peritremate tenui; umbilico magno.*

There are two varieties of this species, one of a dark red colour, the other almost white. They were communicated by Mr. Powis, from Martinique.

*CYCLOSTOMA PLEBEIUM*, nob., Thes. Conch. part 3. pl. 24. f. 40. *Cycl. testd subglobosâ, tenui, obscurâ, subfuscâ, spirid breviusculâ; anfractibus quatuor, rotundatis, rapidè crescentibus, apice obtusiusculo; suturâ distinctâ; aperturâ magnâ, circulari, peritremate tenui; umbilico parvulo; operculo multispirali, extûs albicante, maculâ centrali, depressâ, margine canaliculato, intûs nitido.*

Found in the earth under decayed leaves at Calauang, in the province of Laguna, isle of Luzon, by H. Cuming.

*CYCLOSTOMA SPURCUM*, nob., Thes. Conch. part 3. pl. 24. f. 75, 76. *Cycl. testd suborbiculari, rufescente-fuscâ, spirid prominulâ; anfractibus quatuor, rotundatis, albicante-subvariegatis, spiralièr striatis et subcarinatis, suturâ distinctâ, subcrenulatâ; aperturâ circulari, peritremate albo, tenui, subreflexo; umbilico parvo; operculo crassiusculo, anfractibus quinis.*

From the Seychelle Islands. In Mr. Cuming's collection.

*CYCLOSTOMA CININNUS*, nob., Thes. Conch. part 3. pl. 24. f. 77, 78. *Cycl. testd suborbiculari, subturritâ, tenui, albidd, interdum fusco-unifasciatâ; anfractibus quinis, rotundatis, posticè spiralièr sulcatis, sulcis subdistantibus, anticè spiralièr striatis; suturâ distinctâ; aperturâ circulari, peritremate tenui, versus umbilicum parvum subreflexo, apice obtusiusculo.*

Locality not known. In Mr. Cuming's collection.

*CYCLOSTOMA NITIDUM*, nob., Thes. Conch. part 3. pl. 29. f. 225, 226, 227. *Cycl. testd globoso-conicâ, tenui, pellucidâ, lævi, albâ, interdum fusco-variegatâ, spirid acuminatâ, anfractibus quinis, rotundatis, ultimo maximo, ventricoso, aperturâ circulari, peritremate reflexo, latere columellari subsinuato; suturâ distinctâ; umbilico parvo; operculo tenui, corneo, spirali.*

Var. *a*. Shell pale, closely dotted with brown; on leaves of bushes in the isle of Guimaras.

Var. *b*. Shell pale, with brown dots and bands; from the same locality as *a*.

Var. *c*. Shell white; same locality as *a*, and on leaves of trees at Sibonga.

Var. *d*. Shell pale; found at Cabanatuan.



Var. *e*. Shell pale, with brown streaks and dots; from the island of Guimaras.

*CYCLOSTOMA CONCINNUM*, nob., Thes. Conch. part 3. pl. 29. f. 223, 224. *Cycl. testâ globoso-conicâ, tenui, pellucidâ, lævi, albidâ, viridi-fusco spiralitèr lineatâ, spirâ acuminatâ, anfractibus quinis, rotundatis, ultimo maximo, ventricoso; aperturâ circulari, peritremate reflexo, latere columellari subsinuato; suturâ distinctâ; umbilico parvo; operculo tenui, corneo, spirali.*

Several varieties of this very pretty species have been brought by Mr. Cuming from the Philippine Islands; they are as follows:—

Var. *a*. Shell with numerous brownish spiral lines. On leaves of trees at Jacna, isle of Bohol.

Var. *b*. Shell white, opaque, with hyaline spiral lines and a brown band in front. Found on leaves of bushes at Misamis, island of Mindanao.

Var. *c*. Shell like var. *b*, but without the brown band. On leaves of trees, island of Camaguing.

Var. *d*. Shell with broader brownish spiral lines. Found on leaves of bushes at Loon, island of Bohol.

Var. *e*. With the spiral brownish bands subinterrupted. Found at Marabojoc, island of Bohol, on leaves of trees.

Var. *f*. Shell pale brown, covered with a thin epidermis with hispid spiral lines. Found on leaves of bushes at Loboc, island of Bohol.

*CYCLOSTOMA AQUILUM*, nob., Thes. Conch. part 3. pl. 27. f. 131.

*Cycl. testâ suborbiculari, subdepressâ, tenuiusculâ, lævi, fulvescente-fusco, nonnunquam cingulo pallescente mediano; spirâ brevi, acuminatusculâ, anfractibus quinis, subplanulatis, primis paululum carinatis, ultimo maximo, rotundato; aperturâ circulari, expansâ, albicante vel fulvescente, peritremate subincrassato, reflexo, supra anfractum ultimum interrupto, latere umbilicali subsinuato; umbilico magno.*

Found in the woods at Singapore under decayed leaves, by H. Cuming.

*CYCLOSTOMA IRROBATUM*, nob., Thes. Conch. part 3. pl. 27. f. 134,

135. *Cycl. testâ subgloboso-conicâ, tenui, lævi, pallescente, fusco-irroratâ, plerumque cingulo mediano nigricante; spirâ elevatusculâ, apice nigricante, obtuso; anfractibus quinis, ventricosis, primùm subcarinatis, deinde rotundatis; suturâ tenui; aperturâ fere circulari, posticè obsoletè subacuminatâ, anfractu ultimo tenuiter modificato, peritremate crassiusculo, rotundato-reflexo; umbilico mediocri.*

Numerous specimens of this species have been imported from China within the last few years.

*CYCLOSTOMA SUBSTRIATUM*, nob., Thes. Conch. part 3. pl. 25. f. 95.

*Cycl. testâ suborbiculari, depressâ, crassiusculâ, læviusculâ, fuscescente, spirâ brevissimâ, submucronatâ; anfractibus quatuor, rotundatis, posticè transversim striatis, striis ex suturâ profundâ radiantibus, anticè lævibus; aperturâ circulari, peritremate subin-*

*crassato, subreflexo; umbilico lato; operculo multispirali, latere canaliculato, intus nitido.*

Found in earth under decayed leaves in the island of Siquijod, by H. Cuming.

CYCLOSTOMA SEMISULCATUM, nob., Thes. Conch. part 3. pl. 25. f. 99.

*Cycl. testâ suborbiculari, depressiusculâ, tenuiusculâ, albicante, fasciâ angustâ medianâ, fusco-nigricante, posticè plerumque brunneo-variegatâ; spirâ brevi, anfractibus quinque, posticè spirali-ter sulcatis, sulcis distantibus, anticè læviter striatis vel lævibus; suturâ distinctâ; aperturâ ferè circulari, peritremate incrassato, subreflexo, posticè angulifero; umbilico lato, intus spirali-ter striato; operculo corneo, crassiusculo, extus sublamelloso, intus lævi.*

CYCLOSTOMA PANAYENSE, nob., Thes. Conch. part 3. pl. 30. f. 239.

*Cycl. testâ globoso-conicâ, tenuissimâ, pellucidâ, lævi, fuscescen- te, spirâ brevi, obtusiusculâ, anfractibus quinque, spirali-ter et distan- ter substriatis, rotundatis, ultimo anticè ad peripheriam carinâ obsoletâ munita; aperturâ magnâ, ferè circulari, peritremate lato, reflexo, ad ultimum anfractum interrupto, margine interno albo, externo fusco; umbilico parvo; operculo tenui, anfractibus 5—6.*

Found on leaves of bushes in the island of Panay and in the moun- tains of Basey, island of Samar, by H. Cuming.

CYCLOSTOMA LUTEOSTOMA, nob., Thes. Conch. part 3. pl. 30. f. 228,

229. *Cycl. testâ globoso-conicâ, tenui, pellucidâ, albâ, epider- mide tenui, corned indutâ; spirâ acuminatâ; anfractibus quinque, rotundatis, ultimo magno, ventricoso; aperturâ subcirculari, peri- tremate reflexo, aurantiaco, latere columellari subsinuato, prope ultimum anfractum interrupto; suturâ distinctâ; umbilico parvo; operculo tenui corneo, multispirali.*

On leaves of bushes in the island of Guimaras.

CYCLOSTOMA INSIGNE, nob., Thes. Conch. part 3. pl. 30. f. 232.

*Cycl. testâ subglobosâ, subconoided, prætenui, corned, pellucidâ, viridescen- te fusca, spirâ acuminatiusculâ; anfractibus quinque, primis rotundatis, lævibus, duabus ultimis tenerrimè transversim striatis, margine acutè carinato, posticè subplanulatis, 5- ad 7- carinatis, ultimo maximo, ante carinam subobsoletè 2- vel 3- cari- natis; aperturâ magnâ, subcirculari, peritremate tenui, reflexo, intus albo, ultimo anfractu modificato; umbilico exiguo; operculo tenui, corneo.*

Found on leaves of trees at Calapan, island of Mindoro, by H. Cuming.

CYCLOSTOMA FIBULA, Thes. Conch. part 3. pl. 30. f. 240, 241, 242.

*Cycl. testâ suborbiculari, conicâ, tenui, cinerascen- te fusca vel al- bidâ, nonnunquàm fusco angulatim strigatâ, spirâ acuminatiusculâ, anfractibus 5—6, lævibus, lineis spirali-ter nonnullis elevatiusculis, ultimâ magnâ, anticè obtusè carinatâ, ante peripheriam subplanu- latâ; aperturâ subobliquâ, rotundato-subquadratâ, peritremate re- flexo, supra ultimum anfractum latè interrupto, latere umbilicali*

*rotundato revoluto; umbilico parvo, angusto; operculo tenui, corneo, anfractibus 6-7.*

Several varieties of this species were brought from the Philippine Islands by Mr. Cuming; they are as follows:—

Var. *a.* Shell greyish red. Found on leaves of trees at St. Juan, in the province of Cagayan, island of Luzon.

Var. *b.* Shell white, with angular brown stripes. Same locality as *a.*

Var. *c.* Shell white, with very delicate brownish streaks. Same locality as *a.*

Var. *d.* Shell larger; white. Found upon palm-leaves near Catanaun, in the province of Tayabas, island of Luzon.

Var. *e.* Shell small; white. On leaves of trees at Lallo, in the province of Cagayan.

CYCLOSTOMA LÆVE, Gray; *C. immaculatum*, Chemnitz.

Of this species Mr. Cuming has collected the following varieties, viz.

Var. *a.* Shell white, with an obsolete keel. Found on leaves of trees at Bulinao, province of Zambales.

Var. *b.* Shell whitish, covered with small brown streaks and dots. Same locality as *a.*

Var. *c.* Shell white, with a brown band in front. Same locality as *a.*

Var. *d.* Shell of a pale colour, with a brown circumferential band. Found on leaves of bushes at Sinait, in the province of South Ilocos, island of Luzon.

Var. *e.* Shell pale, with strongly marked irregular stripes of brown. Same locality as *a.*

CYCLOSTOMA PERPLEXUM, nob., Thes. Conch. part 3. pl. 30. f. 243, 244. *Cycl. testâ suborbiculari, subconicâ, tenui, albidd, pallidè fusco varîè nubeculatâ, spirâ brevi, anfractibus quinque, subrotundatis, lævibus, ultimo ad peripheriam subcarinato, posticè lineis levatiusculis distantibus nonnullis munito; suturâ indistinctâ; aperturâ subcirculari, peritremate crassiusculo, reflexo, ad ultimum anfractum interrupto, latere umbilicali revoluto; umbilico mediocri.*

Found on bushes at Abulug, isle of Luzon, by Mr. Cuming.

CYCLOSTOMA MUCRONATUM, nob., Thes. Conch. part 3. pl. 25. f. 91.

*Cycl. testâ suborbiculari, depressâ, pallescente-fuscâ, tenui, spirâ brevi, mucronatâ; anfractibus quatuor, rapidè crescentibus, rotundatis, tenerrimè transversâ striatis; suturâ validâ; aperturâ circulari, peritremate duplici, externo lato, subreflexo, interno angusto, lineari; umbilico lato; operculo multispirali, suturâ anfractuum lamellosâ, margine canaliculatâ, intus nitido.*

Found by Mr. Cuming under decayed leaves at Calauang in Luzon.

CYCLOSTOMA FULVESCENS, nob., Thes. Conch. part 3. pl. 25. f. 79,

80. *Cycl. testâ globoso-conicâ, tenuiusculâ, pallidè brunneâ, spirâ subacuminatâ, anfractibus quinque, rotundatis, confertim spiralitèr striatis, ultimo maximo; aperturâ ferè circulari, peritremate tenui; suturâ distinctâ; umbilico parvo.*

From Madagascar. Sent to Mr. Cuming by Mr. Petit.

**CYCLOSTOMA LINGULATUM**, nob., Thes. Conch. part 3. pl. 30. f. 208, 209, 210. *Cycl. testâ suborbiculari, subdepresso-conoïdè, tenuiuscula, lævigatâ, pallidè fusco variè maculatâ, vel radiatim strigatâ, spirâ brevi, subacuminatâ, apice obtusiusculo; suturâ subinconspicua; anfractibus 4½, ventricosiusculis, plerumque acutimarginatis, nonnunquam margine ultimi rotundato; aperturâ circulari, peritremate pallido, plerumque duplici, interno lineari, externo latiori, reflexo, supra umbilicum plus minusve latè extenso; umbilico mediocri; operculo corneo, tenui, multispirali.*

Var. *a.* Distinctly keeled, dark brown, white-spotted near the suture and at the circumference. Found on leaves of bushes in the island of Siquijod.

Var. *b.* Of a pale colour, variously mottled with dark brown. Found in the same locality as var. *a.*

Var. *c.* Of a dark brown colour, with angular radiating white stripes. Found on leaves of bushes at Daleguete, in the island of Zebu.

Var. *d.* Strongly keeled, with dark brown marks radiating from the suture, and speckled with brown. Also from Daleguete.

Var. *e.* Last volution rounded. Found on leaves of bushes at Sibonga, in the island of Zebu.

Var. *f.* Last volution rounded, colour very pale, variously mottled and speckled with brown. Found on leaves of bushes at Loboc, island of Bohol.

Var. *g.* Of a very dark colour, variously mottled, and with the ligulate appendage of the lip very small. Found on leaves of bushes at Argao, in the island of Zebu.

Var. *h.* Of a paler colour, but in other respects like *g.* Found on leaves of bushes at Loboc.

**CYCLOSTOMA ATRICAPILLUM**, nob., Thes. Conch. part 3. pl. 30. f. 230, 231. *Cycl. testâ globoso-pyramidali, tenui, nitidulâ, albicante, variè fusco-strigatâ, apice nigro, anfractibus 5, subrotundatis, plus minusve obsolete spiralitèr carinatis; suturâ distinctâ; aperturâ rotundatâ, supernè subacuminatâ, peritremate acuto, reflexo, latere umbilicali subsinuato, ultimi anfractus interrupto; umbilico parvo; operculo corneo, tenui.*

Mr. Cuming has brought the following varieties, viz. :—

Var. *a.* Nearly white, mottled variously with pale brown. Found on leaves of trees and bushes at Puerto-galero, isle of Mindoro.

Var. *b.* Of a brown colour, with pale mottlings. From the same locality as *a.*

Var. *c.* Of a pale colour mottled with dark brown, and a dark and light brown articulated band in front of the suture. Same locality as *a.*

Var. *d.* Of a pale colour, with dark brown irregular stripes radiating from the suture; paler in front. Same locality as *a.*

Var. *e.* White, with similar radiating dark brown stripes; keel white; brown stripes continued over the front. Found on leaves of trees and bushes at Calapan, island of Mindoro.

**CYCLOSTOMA GONIOSTOMA**, nob., Thes. Conch. part 3. pl. 30. f. 223,

224. *Cycl. testâ suborbiculari, conoidea, margine carinato, tenui, subpellucidâ, levi, albidd, fusco variè strigatâ, spirâ acuminatâ, apice nigricante, obtusiusculâ; anfractibus 5½, planulatis, ultimo subventricoso, obsolete bi-vel tricarinatis, margine acuto, anticè subplanulatâ; aperturâ rotundato-subtrigond, anticè subrotundatâ, posticè extûsque angulatâ, peritremate tenui, angusto, reflexo; umbilico parvo.*

The two following varieties were found by Mr. Cuming at Cagayan, in the province of Misamis, island of Mindanao:—

Var. *a.* Of a pale colour, with dark brown stripes.

Var. *b.* Of an uniform dun colour.

*CYCLOSTOMA ACUMINATUM*, nob., Thes. Conch. part 3. pl. 30. f. 235.

*Cycl. testâ subglobosâ, pyramidalî, tenui, levi, pellucidâ, albicante, spirâ acuminatâ, apice obtusiusculo, fuscescente, anfractibus sex, rotundatis, substriatis, ultimo magno, carinâ ad peripheriam obsoletiusculâ munito, ante carinam planulatusculo; aperturâ subcirculari, posticè subacuminatâ, peritremate tenui, reflexo, ad ultimum anfractum interrupto, latere umbilicali subsinuato; umbilico parvo.*

Found by Mr. Cuming on leaves of trees at St. Juan, isle of Luzon.

*CYCLOSTOMA MINUS*, nob., Thes. Conch. part 3. pl. 30. f. 249.

*Cycl. testâ ovato-oblongâ, cylindraceâ, tenui, hyalind, levi, nitidâ, spirâ obtusâ, apice quasi truncatâ; anfractibus 4 ad 5, ventricosis, primis 2 ad 3 minimis, transversim costellatis; aperturâ circulari, peritremate reflexo; umbilico nullo.*

Found under decayed leaves in the mountains of Igbaras, province of Ilo Ilo, island of Panay, by Mr. Cuming.

*CYCLOSTOMA CILIATUM*, nob., Thes. Conch. part 3. pl. 30. f. 237, 238.

*Cycl. testâ suborbiculari, conoideâ, tenuiusculâ, lævigatâ, fulvescente, fusco radiatim strigatâ, spirâ brevi, submucronatâ; apice acuminatusculo; anfractibus quinque, subrotundatis, ultimo magno, margine carinato (carinâ epidermide ciliatâ); aperturâ circulari, peritremate reflexo, posticè emarginato; umbilico magno; operculo tenui, corneo, multispirali.*

Found under stones at Mount Isarog, in the province of South Camarinas, island of Luzon.

*CYCLOSTOMA HELICOIDES*, nob., Thes. Conch. part 3. pl. 30. f. 245,

246. *Cycl. testâ suborbiculari, conoidali, crassiusculâ, spiralitèr striatâ, fulvescente, fusco radiatim strigatâ; spirâ brevi, acuminatusculâ, anfractibus 5 ad 6, rotundatis, anticè levibus, posticè spiralitèr striatis, obsolete 4- ad 5-carinatis, carinis duabus posticis epidermide ciliatis; aperturâ circulari, peritremate duplici, albicante, posticè emarginato, interno tenui, levatusculo, externo angusto, reflexo; umbilico majusculo; operculo tenui, corneo, multispirali.*

Var. *a.* Dark-coloured. Found under decayed leaves at Gindulman, in the island of Bohol.

Var. *b.* Pale. Found under decayed leaves at Jacna, island of Bohol.

**CYCLOSTOMA PARVUM**, nob., Thes. Conch. part 3. pl. 31. f. 254, 255. *Cycl. testâ suborbiculari, depresso-conoided, tenui, lævigatâ, fulvescente, radiatim fusco strigatâ, spirâ brevi, submucronatâ, anfractibus quinque, rotundatis, tenerrimè spiralitèr striatis, obsoletissimè 4—5-carinatis; aperturâ circulari, peritremate simplici, posticè submarginato; umbilico magno; operculo corneo, crasso.*  
 Var. *a.* Found under decayed leaves at Daleguete, island of Zebu.  
 Var. *b.* Found under decayed leaves at Dingle, isle of Panay.

**CYCLOSTOMA MACULOSUM**, Thes. Conch. part 3. pl. 31. f. 256, 257. *Cycl. testâ suborbiculari, depressâ, crassiusculâ, lævi, castanè, albido-maculosâ, spirâ paululùm levatâ, apice nigricante; anfractibus 4, rotundatis, obsoletè spiralitèr striatis; aperturâ subcirculari, peritremate subincrassato, subreflexo, posticè acuminatusculo; umbilico maximo, spiralitèr castaneo lineato.*  
 In Mr. Cuming's collection.

Mr. Gulliver then communicated his notes on the blood-corpuscles of the Stanley Musk Deer.

"Since my observations\* have shown that the blood-discs of the Napu Musk Deer (*Moschus Javanicus*, Pallas) are minuter than those hitherto described of any other mammal, the size of the red particles of other allied species has become an interesting question.

"The following measurements which I have lately made of the blood-discs of the Stanley Musk Deer (*Moschus Stanleyanus*, Gray) are expressed in vulgar fractions of an English inch:—

1-11339	} Common sizes.
1-10664	
1-16000	Small size.
1- 8000	Large size.
<hr/>	
1-10825	Average.

"Hence the corpuscles of this animal are nearly as minute as those of the Napu Musk Deer and smaller than those of the Ibex and of the Goat, as may be seen by a reference to the comparative measurements given of the corpuscles of the three last-named animals in my paper on the blood-corpuscles of the Ibex, published in the Proceedings of this Society, August 9, 1842."

Various species of Bats from the Philippine Islands, collected by Hugh Cuming, Esq., Corresponding Member, were placed on the table, and Mr. Waterhouse read his notes relating to them. He observed that the specimens exhibited formed part only of the extensive series brought home, and that he should lay the remaining portion before the Society on a future occasion.

Of the genus *Pteropus*, as now restricted, Mr. Cuming's collection

\* Trans. Roy. Med. Ch. Soc. v. 23; Dublin Med. Press, Nov. 27, 1839; Froriep's Notizen, No. 268; Valentin's Repertorium, 1840; Appendix to Gerber's Anat., pp. 5 and 44.

contained two species: one is undoubtedly the *Pteropus jubatus* of Eschscholtz; the other is perhaps new. It is rather less than the *Pteropus Edwardsii*, and does not agree precisely with any of the descriptions given by Temminck in his 'Monographies.' The head is rusty yellow, slightly tinted with brownish on the muzzle and around the eye; the back of the neck, down to the shoulder, is of a beautiful golden rust-colour; the hair here is loose, but from the shoulder downwards the hair is of a harsher nature, closely applied to the body, and is of a very deep brown hue, but somewhat tinted with rust-colour near the thigh; the throat is of a deep chocolate-brown colour, and the under parts of the body are of a bright rust tint, excepting at the sides, where a dusky hue prevails; the hair on the humerus and on the under side of the membrane is nearly black. The interfemoral membrane is very narrow and much hidden by the fur. The principal dimensions are—

	in.	lin.
Total length .....	9	6
Expanse of the wings .....	32	0
From the tip of the muzzle to the ear .....	2	2
Length of ear .....	0	10
Depth of interfemoral membrane about ....	0	6

The collection contains but one specimen of this species, and that is preserved in spirit; I will not venture therefore to apply a specific name, having such imperfect materials.

Of the genus *Pachysoma* the collection contains three species—*P. amplexicaudatum* (Geoff.), *P. titthecheilum* (Temm.), and the *P. brevicaudatum* (Is. Geoff.).

*Macroglossus minimus* (*Pteropus minimus*, Geoff.).—Of this species I find three specimens in the present collection. In all, the membranes of the wings, &c. are of a rich reddish brown colour.

Genus *Rhinolophus*.—Four species of this genus were brought home by Mr. Cuming. The first and largest species, I can feel no doubt, having examined its skull in combination with the external characters, is the *R. nobilis*, Horsf. The second I have pretty clearly identified with the *R. bicolor* of Temminck, and the other two are, I believe, undescribed. Their characters may be thus expressed:—

**RHINOLOPHUS PYGMÆUS.** *Rhin. prosthemate superiore semicirculari; corpore suprâ nigricante (pilis ad basin albescentibus), subtus cinerescente; auribus acutis ad latus exterius distinctè emarginatis.*

	unc.	lin.
Longitudo ab apice rostri ad caudæ basin. . .	1	5
— caudæ .....	0	10 $\frac{1}{2}$
— auris .....	0	4 $\frac{1}{2}$
— antibrachii .....	1	5 $\frac{3}{4}$
Alarum amplitudo .....	8	6

This small species is almost of an uniform sooty colour (as seen in spirit), but the under parts are inclining to grey; and the fur on the back, though blackish externally, is nearly white next the skin; the hair on the lips and chin is white. The membranous appendages

of the nose are of considerable extent, and, taken together, they form an oval figure; this is transversely divided near the middle by a slight fleshy ridge; the membrane in front of this ridge, and which encircles the nostril-openings, has its edges free, and on each side of the muzzle are two distinct longitudinal narrow folds of membrane, situated partially under the free edge of the membrane which encircles the nostrils: behind the transverse mesial ridge is what may be termed the posterior nose-leaf; this is of a semicircular form, has its margin thickened and raised, and sending forwards to the transverse ridge just mentioned three small ridges, dividing the interspace into four little hollows or pits. The ears are of moderate size, acute at the point, and have the outer margin distinctly emarginated. On the lips are some indistinct warts, and on the tip of the lower lip are two which are more prominent and distinct.

The *R. pygmaeus* approaches somewhat to the *R. bicolor*, but differs not only in colour, but in having the ears smaller and distinctly emarginated externally; the hinder nose-leaf is larger. It approaches in size the *R. tricuspidatus*. The ears are larger than in that species, and the nose-leaf is also larger, considerably more extended in the antero-posterior direction, and differs moreover in structure.

**RHINOLOPHUS PHILIPPINENSIS.** *Rhinol. suprâ obscure fuscus, subtus fusco-cinereus; auribus magnis, subacutis, ad latus exterius emarginatis, et lobo magno accessorio, ad apicem rotundato, instructis; prosthemate maximo lobo posteriore lanceolato, anteriore valde elevato, ad apicem truncato, ad basin dilatato, hoc ferreo equino membraneo circumdato.*

	unc. lin.
Longitudo capitis cum corpore .....	1 11
— caudæ .....	1 0
— aurium .....	0 11
— antibrachii .....	1 10
Alarum amplitudo .....	10 6

This species belongs to the same section as the *Rhinolophus ferrum-equinum*,—the second section of Temminck's 'Monographies,'—and approaches most nearly to the *R. euryotis* of that author, from which however it may be readily distinguished by the much larger size of the accessory lobe of the ear, and the truncated form of the foremost of the two membranaceous nasal appendages. It also approaches, in the large size of the ears and great development of the nasal appendages, the *R. luctus* of Temminck, but is of smaller size; the ears are rather less acutely pointed; the accessory lobe at the base is longer and proportionally narrower, and the proportions of the nasal membrane differ. In spirit the colour of the fur is very dark brown; on the under parts of the body rather paler than on the upper, and inclining to greyish. The nasal membranous appendages are very complicated, and being evidently on the same type as the *R. luctus*, I will compare them with the corresponding parts as shown in Temminck's figure of that species. The large decumbent horse-shoe



membrane is the same as in *luctus*, and similarly notched in front. The foremost of the two elevated appendages is nearly the same, but the lateral lobes at the base are less produced and considerably smaller; joining these lobes on each side is a small membranous fold extending outwards and backwards, and is attached to the horse-shoe membrane. The posterior lobe is lanceolate and more pointed than in *luctus*, has a transverse fold near its base as in that species, and is joined to the anterior truncated elevated lobe by a longitudinally elevated membrane. The height of the posterior lanceolate lobe is  $3\frac{1}{4}$  lines, and of the anterior lobe  $2\frac{1}{4}$  lines, or rather more. On the side of the muzzle is a longitudinal fleshy ridge. The chin presents four warts, two at the tip and one on each side of these. The extreme point of the tail is free, the free portion being however not more than half a line in length.

Lastly, Mr. Waterhouse called attention to a new species of *Megaderma*.

**MEGADERMA PHILIPPINENSIS.** *Meg. supra cinereo-fuscus, subtile cinereus; prosthema verticali, ferè ovali, ad apicem subtruncato, horizontali, paulò minori, cordiformi; auribus permagnis, trago elongato, attenuato, acuto, ad basin, anticè, lobo mediocri acuto instructo.*

	unc. lin.
Longitudo capitis cum corpore .....	2 8
———— aurium .....	1 $1\frac{1}{2}$ *
———— antibrachii .....	2 $1\frac{1}{4}$
Alarum amplitudo .....	12 9

This species, of which Mr. Cuming's collection contains several specimens, agrees closely with the *M. trifolium* of Geoffroy in having the foremost nose-leaf broader and the hinder one shorter and broader than in *M. Lyra*; but it differs from the *M. trifolium* in the form of the tragus of the ear, this not presenting the character which suggested the specific name; it differs moreover (judging from M. Geoffroy's figure) in having the ears considerably larger, and not quite so deeply cleft. The whole length of the divided nose-leaf is  $5\frac{3}{4}$  lines, of which the anterior cordiform portion is rather less than half; the greatest width of the posterior portion is nearly  $3\frac{1}{4}$  lines, and of the anterior portion  $3\frac{3}{8}$  or nearly  $3\frac{1}{2}$  lines. The length of the tragus of the ear is  $8\frac{1}{2}$  lines; it is very narrow and acutely pointed, and at the base has a small nearly triangular lobe about two lines in length.

The specimens from which my description is taken are preserved in spirit, consequently the proportions given of the nose-leaf, &c. are likely to be more accurate than were they preserved in a dry state.

Mr. Fraser pointed out the distinguishing characters of a new species of Partridge which had recently died at the Society's menagerie. Several specimens of this species, for which Mr. Fraser pro-

\* I measure the height of the ears externally from the crown of the head.

posed the name *Perdix Bonhami*, were procured at Tehran, in Persia, by Edward W. Bonham, Esq., H.M. agent at Tabreez, Persia, and presented to the Society by that gentleman, together with a living specimen of the *Tetraogallus Nigelli* from the same locality, which having died had been stuffed, and was exhibited at the Meeting. The new Partridge was thus characterized :—

**PERDIX BONHAMI.** *Perd. arenaceo-flava, plumis nigro adpersis præsertim apud latera, collum et pectus, hoc notd circulari ornato; strigis superciliaribus subocularibus, et frontalibus nigris; plumis auricularibus albis, laterum plumis nigro-marginatis; rectricibus caudæ quatuor externis crissoque rufis; rostro corneo.*

*Fœmina distinctiùs adpersa, quamvis notis nigris auribusque albis, maris signis, caret.*

This species is nearly allied to *Perdix Heyi*, Temm. Pl. Col., but is readily distinguished from that bird by the black stripes about the head of the male. The female differs in having a more mottled appearance.

Mr. Yarrell exhibited a specimen of the *Puffinus obscurus* from the Dardanelles, and called attention to some peculiarities in its habits, as pointed out in the 'Familiar History of Birds,' &c. by the Rev. Edward Stanley (now Bishop of Norwich), to whom the specimen belonged. Considerable interest is attached to the bird exhibited, since, though often alluded to by travellers who have visited the Dardanelles (but under native names only), naturalists were not aware to what species the accounts referred; and moreover certain prejudices of the inhabitants render it extremely difficult to procure this species of Petrel from the locality mentioned.

May 23, 1843.

R. C. Griffith, Esq., in the Chair.

Mr. Cuming communicated the following paper by M. Récluz, being descriptions of various new species of Shells belonging to the genus *Nerita*, from his collection.

**NERITA POWISIANA.** *Ner. testâ ovato-transversa, ventricosa, superne depresso-planiuscula, variè picta; spirâ brevissima, derosâ, auriculâ elevata, marginatâ; aperturâ ovatâ, dilatâ, externè subrectâ; labio planissimo, anticè recto, acuto et sub lente ruguloso.*  
 Var.  $\alpha$ . *Testâ lutescente, nebulis pallidis vix purpurascentibus variegatâ.*

Var.  $\beta$ . *Testâ ut in var.  $\alpha$ , maculis nigerrimis characteriformibus, triseriatim cinctâ.*

Var.  $\gamma$ . *Testâ luteo-fuscescente, lineolis nigris undulatis, longitudinalibus, dense notatâ.*

*Hab.* Var.  $\alpha$  and  $\beta$ , New Ireland, in mountain-streams, by R. B. Hinds, Esq., Surgeon of H.M.S. Sulphur.

Long. 19 mill.; lat. 14 mill.; convex. 12 mill.

Species valdè mirabilis. Var.  $\gamma$ . *Hab.* —? Mr. Powis.

**NERITA TURTONI.** *Ner. testâ ventricoso-ovatâ, luteo-rufâ seu rubicundâ, flammis nigrescentibus undatis, remotisque, sive angulato-flexuosis pictâ; anfractibus 4-5, convexis, supremis derosis: infimo supernè horizontaliter depresso; labio subconvexo, fusco-rubente, margine in medio tenuiter crenato, basi leviter emarginato; labro intus calloso-albo, ad marginem fusco rubente.*

*Hab.* —? Mr. Powis.

Long. 15½ mill.; lat. 13 ad 14 mill.

*Neritâ variegatâ*, Lesson (*Ner. pulchra*, Sowerby), valdè affinis.

**NERITA NEBULATA.** *Ner. testâ ovato-globosâ, tenuiter striatâ, luteo-fuscescente, lineis nigris squamæformibus parvulis nebulatâ; spirâ prominulâ, rotundatâ; labio angustato, subconvexo, margine retiusculo, crenulato, flavescente; labro semi-ovatâ, intus cærulescente, margine flavo.*

*Hab.* Immimaylan, in a mountain-stream.

Long. 10 mill.; lat. 11 mill.; convex. 8 mill.

**NERITA MEERTONIANA.** *Ner. testâ ovato-globosâ, maculis pallidè lutescentibus zonisque articulatis nigro-purpurascentibus fimbriatis cinctâ; spirâ vix prominente, rotundatâ, apice eroso; aperturâ obliquâ, luteolâ; labio subconvexo, angusto, margine tenuè arcuato et crenulato.*

Var.  $\beta$ . *Testa major, lineolis intricatis, picta.*

*Hab.* cum præcedente.

Long. 9 ad 10 mill.; lat. 11 ad 11½ mill.; convex. 7½ ad 8 mill.

Affinis *Neritæ Oualaniensis*, Lesson, sed major, solidior, minus rotundata et variegata: non var. robustior.

*NERITA MICHAUDIANA*, Récluz in Rév. Cuvérienne, Paris 1841.

Var.  $\beta$ . *Testa rotundata, suprâ medium spinis angustis brevibusque armata.*

*Hab.* cum typo ad "Bunang, province of Pangasinan, isle of Luzon, on small stones on the bank of a river." DD. Souleyet et Cuming inveniunt.

*NERITA JOVIS.* *Ner. testâ ventricoso-ovatâ, nigrâ, lineolis angulato-flexuosis fulgorantibusve albis pictâ, punctatâque; anfractibus quinque convexis; spirâ conico-depressâ, nigro-violascente, albo punctatâ, acutâ; aperturâ albo-virescente; labio plano, margine in medio vix arcuato ac denticulato.*

*Hab.* — ? Mr. Powis.

*Neritinæ lugubris*, Lamarck, valdè affinis, sed solidior, minor, colore denique propria.

*NERITA CUPRENA.* *Ner. testâ ventricoso-oblongâ, subepidermide cupreo-micante nigrâ, lineolis angulato-flexuosis densissimè pictâ; anfractibus 4-5 ? convexis, superne rotundatiusculis; apice deroso; labio plano, lutescente, in margine vix arcuato et denticulato, basi subemarginato; labro intus albedo-cærulescente, ad marginem lateo-viridescente.*

*Hab.* — ? Mr. Powis.

Long. 12 mill.; lat. 11 mill.

Affinis *Neritæ Royssianæ*, Récl., sed colore et epidermide notabili diversa.

*NERITA PYRIFERIANA.* *Ner. testâ ventricoso-ovatâ, nigrâ, albido-lutescente biconatâ; zonâ medianâ spiram decurrente; anfractibus quaternis, convexis, ad suturam minimè marginatis; apice decorticato, obtusiusculo; aperturâ rotundâ; labio compresso, concaviusculo, albido, in margine arcuatum ac obtusè denticulato; denticulis obsoletis, cardinali productiusculo; labro dilatato, tenui, nigro-cærulescente et lateo quadrifasciato.*

*Hab.* From New Ireland, in a mountain-stream, by R. B. Hinds, Esq.

Long. 8 mill.; lat. 7 mill.; convex. 4 mill.

Species elegans, rarissima. *Columella* extus zonâ angustâ, o punctis moniliformibus seriatis cincta.

*NERITA APIATA.* *Ner. testâ ventricoso-globosâ, tenuissimâ, rugosâ, subepidermide olivaceâ fusco-violascente, tituris transversis albidis pictâ; anfractibus quaternis superne depresso-planulatis; spirâ prominulâ, apice pulchrè croceo, hyalino; aperturâ dilatâ; labio semilunari, nigrescente externe zonato, antice albo, recto, integerrimo.*

*Hab.* Island of Negros; in mountain-streams, on stones.

Long. 11 mill. ; lat.  $14\frac{1}{2}$  mill. ; convex.  $10\frac{1}{2}$  mill.

Affinis variet. *Nerita dubia*, sed columella basi non emarginata diversa est. Columella in centro parùm inflexa.

**NERITA DONOVANA.** *Ner. testâ semiglobosâ, tenuiter et densè striatâ, viridescente, lineis obliquis purpureo-nigris, undatis, æquidistantibus ornatâ; anfractibus tribus convexis, supra medium spinis curvatis armatis; apice deroso; aperturâ cærulescente, basi effusâ angulatâque; labio angusto, supernè calloso, basi concavo, margine subrecto, denticulato; dente cardinali majori.*

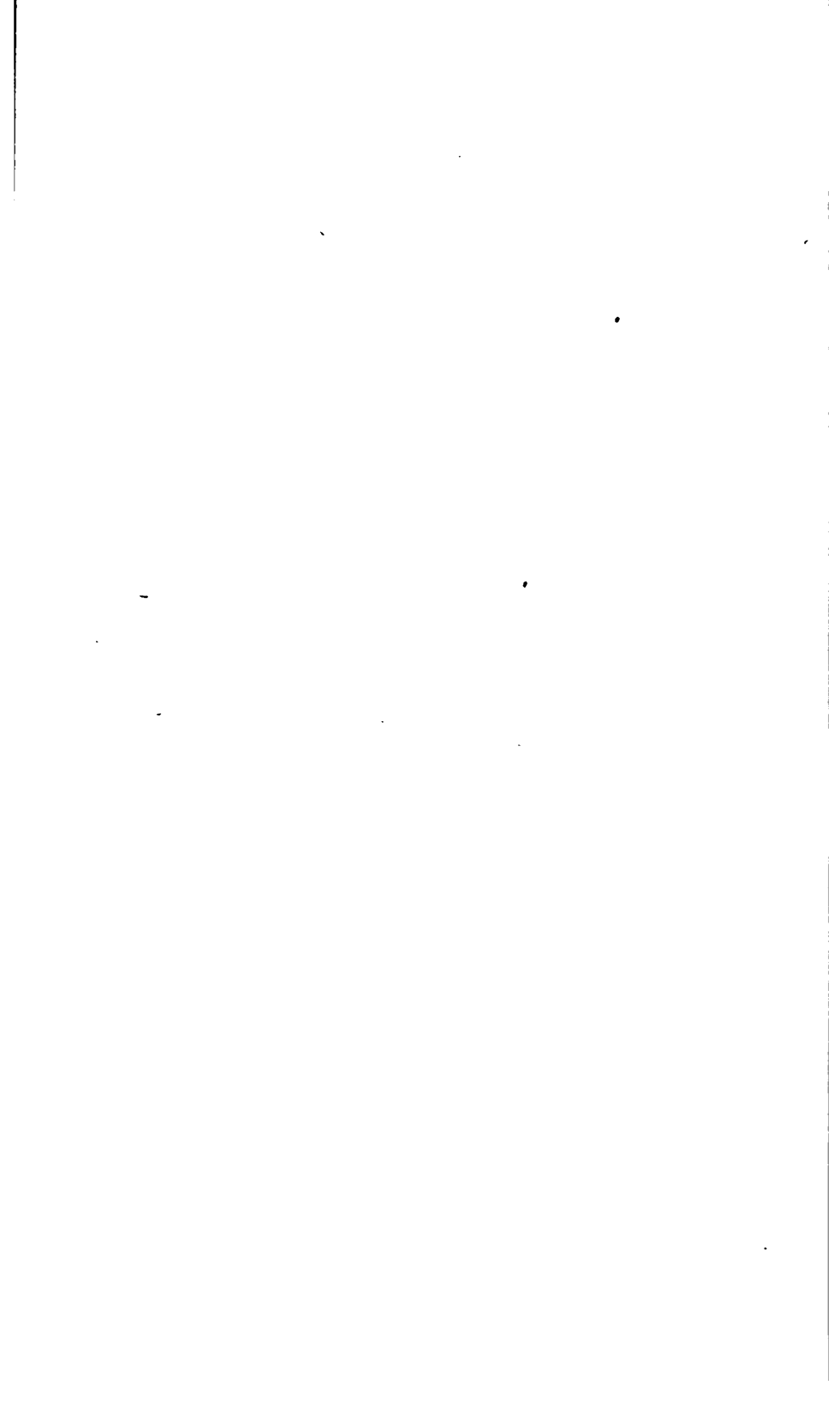
Var.  $\beta$ . *Ovata, nitida, maculis viridibus et purpureis, densè intricata; ultimo anfractu supernè adscendente; spirâ prominulâ, convexâ.*

*Hab.* Island of Guimaras, on stones in a small stream.

Long.  $12\frac{1}{2}$  mill. ; lat. 15 mill. ; convex. 10 mill.

Var.  $\beta$ . Long. 14 mill. ; lat. 15 mill. ; convex. 11 mill.

Living examples of two species of *Hypsiprymnus*, belonging to the Right Hon. the Earl of Derby (President), were exhibited.



June 13, 1843.

Prof. Rymer Jones in the Chair.

A white variety of the Irish Hare (*Lepus Hibernicus*, Yarrell), presented by Robert Leslie Ogilby, Esq., was exhibited.

The following Notes by Prof. B. Forbes, on the species of *Neara* (Gray) inhabiting the Egean Sea, were read:—

“Among the Mollusca inhabiting the seas of the Grecian Archipelago are four species of the genus *Neara*, two of which have been previously described, and two are apparently new.

“The described species are the *Neara cuspidata*, a well-known shell, and the type of the genus, extensively distributed throughout the European seas. In the Egean it is scarce, but by no means local; and of all the Greek species, is that found in the shallowest water. The second described species is the *Neara costellata*, a beautiful bivalve hitherto recorded only in the fossil state. It was described and figured by M. Deshayes in the great French work on the Morea, from specimens found in the tertiary strata of that country. I have taken it not unfrequently in the Egean, sometimes alive and at considerable depths, even below 100 fathoms.

“Of the new species, one is nearly allied to *Neara cuspidata*, and appears to replace it in the deeper parts of the Egean. I have called it

*NEARA ATTENUATA*. *N. testâ oblongâ, obsolete striatâ, anticè rotundatâ, superiore subangulatâ, posticè longi-rostratâ; rostro angusto, areâ lineari transversè striatâ; umbonibus obtusis; dente laterali in valvulâ superiori lineari.* Long.  $0\frac{2}{10}$ ; lat.  $0\frac{2}{10}$ .

“The second is an anormal and aberrant form, differing in its hinge characters from the other Egean species. It inhabits very deep water, even to 200 fathoms, and I have never taken it in less than 100. I have never met with it alive.”

*NEARA ABBREVIATA*. *N. testâ suborbiculari, transversè leviter sulcatâ, anticè rotundatâ, posticè brevi-rostratâ; rostro lato, areâ obsolete; umbonibus acutissimis; dente laterali obsoleto.*

The following paper was then read:—

“Descriptions of new species of *Neara*, from the collection of Sir Edward Belcher, C.B., made during a voyage round the world, and from that of Hugh Cuming, Esq., obtained during his visit to the Philippines; with notices of the synonymy.” By Mr. Hinds.

The number of species of *Neara*, Gray, now on record permits us to generalize on their geographic distribution. They are all found in Nos. CXXV. CXXVI. & CXXVII.—PROC. OF THE ZOOL. SOC.

water of greater or less depth, and spread over a wide extent of latitude; the larger proportion are found in the seas of warm climates, particularly of the Indian Ocean. In the Atlantic the group is met with in a high northern latitude, but the number of species gradually diminishes towards the seas of temperate or cold climates. A few of the recent species are found in a fossil state in the more recent tertiary deposits, and there are some fossil species which hitherto have not been noticed in a recent state. The individuality of the genus has also been maintained by M. Nardo, who has called it *Cuspidaria*.

*NEERA ROSTRATA*, Chemnitz (sp.).

*Mya rostrata*, Chem., vol. xi. p. 195. vig. C, D.; Dillwyn, Cat. vol. i. p. 45.

*Anatina longirostris*, Lamarck, Hist. des An. sans Vert., ed. Deshayes, vol. vi. p. 78.

*Neera chinensis*, Gray. Griffith's Ed. of Cuvier's An. Kingd., Mollusca, pl. 2. f. 5.

*Neræa chinensis*, ibid. Index.

*Corbula rostrata*, Deshayes, ed. Lamarck. Note. Hanley's species of Lamarck.

Hab. China.

Cab. Cuming.

*NEERA CUSPIDATA*, Olivi (sp.).

*Tellina cuspidata*, Olivi, Zool. Adriatic, p. 101. pl. 4. f. 1.

*Erycina cuspidata*, Risso, Hist. Nat. des environs de Nice, t. iv. p. 366. f. 170.

Hab. As a recent shell it inhabits deep water in the Adriatic Sea; Northumberland; also the north-west coast of Sweden. Nor can I perceive any specific difference in the valve of a shell obtained from eighty-four fathoms in the China Sea, the temperature below being 66°, and at the surface 83°, except that it is the portion of a much larger shell. As a fossil it is described by Risso from 'Trinité,' and also abounds in Sicily.

*NEERA HYALINA*. *N. testâ magnâ, diaphanâ, ventricosâ, antiçè rotundatâ, posticè subrostratâ, rotundatâ; valvis subæqualibus; epidermide tenui, scabrâ, indutâ.* Long. 11; lat. 7; alt. 8 lin.

*Neera hyalina*, Sowerby, ined.

Hab. China; Mr. G. B. Sowerby.

Cab. Cuming et Belcher.

My regard for the conchological attainments of Mr. G. B. Sowerby has induced me to adopt his cabinet name for this shell.

*NEERA ELEGANS*. *N. testâ oblongâ, tenui, lineis salientibus transversis ornatâ; rostro angulato, corrugato; valvarum margine ventrali acuto, simplici.* Long. 8; lat. 4; alt. 4½ lin.

Hab. New Guinea, China Sea, and Singapore. On a muddy floor, in from seven to eighteen fathoms.

Cab. Belcher et Cuming.



**NEERA COSTELLATA**, Deshayes (sp.).

*Corbula costellata*, Deshayes, Géologie de la Grèce, *Mollusques*, pl. 7. f. 1, 2, 3.

*Hab.* Originally described as a fossil by Deshayes, but has been subsequently obtained recent by Professor Forbes in the Adriatic Sea. A pair of valves is in the collection of Mr. Cuming, purporting as coming from the north-west coast of Sweden, and has the name of *Neera sulcata* attached to them.

**NEERA COSTATA**, Sow. (sp.)

*Anatina costata*, Sowerby, Proc. Zool. Soc. 1834, p. 87.

*Hab.* The west coast of America, between 2° 47' and 8° 5' north lat., namely at St. Helena, from six fathoms, sandy mud; Magnetic Island, twenty-two fathoms; and coast of Veragua, twenty-six fathoms, mud.

Cab. Belcher et Cuming.

**NEERA GOULDIANA.** *N. testâ oblongâ, fragili, hyalind, ventricosâ; costis duodecim radiantibus; valvis valde inæqualibus; rostro lineis tribus obliquis elevatis.* Long.  $3\frac{1}{2}$ ; lat.  $1\frac{1}{2}$ ; alt. 2 lin.

*Hab.* New Guinea; Cagayan, island of Mindanao; and Bay of Manila, Philippines: in from seven to thirty fathoms, sandy mud.

Cab. Cuming et Belcher,

The specific name is in honour of Dr. Gould, the author of the able and luminous Report on the Mollusca of Massachusetts.

**NEERA SINGAPORENSIS.** *N. testâ oblongâ, fragili, hyalind, ventricosâ, costis 17-20 radiantibus; valvis inæqualibus; rostro breviusculo, lineis tribus obliquis elevatis.* Long.  $2\frac{3}{4}$ ; lat.  $1\frac{1}{2}$ ; alt.  $1\frac{3}{4}$  lin.

*Hab.* Singapore; in seven fathoms, mud.

Cab. Cuming. A single specimen.

A shell so very similar to *N. Gouldiana* that it might most easily be confounded with it. In that species however I find the number of radiating ribs to be so constant in a number of individuals, that I must regard it a good diagnostic character. The present species then will be found to differ from it in its smaller size, diminished number of radiating ribs, and shorter beak.

**NEERA CASTA.** *N. testâ oblongâ, fragili, hyalind, ventricosâ; costis numerosis radiantibus, minoribus alternantibus, transversè subtilissimè striatâ; rostro breviusculo, parvo, lineis obliquis elevatis instructo.* Long.  $2\frac{1}{2}$ ; lat.  $1\frac{1}{2}$ ; alt.  $1\frac{1}{2}$  lin.

*Hab.* New Guinea; dredged from a muddy floor in seven fathoms.

Cab. Belcher.

**NEERA CONCINNA.** *N. testâ oblongâ, fragili, subplanulatâ; costis numerosis, parvis, confertis, ultimâ maximâ; valvis subæqualibus; rostro parvo, breviusculo, lineis tribus obliquis elevatis instructo.* Long.  $2\frac{1}{2}$ ; lat. 1; alt.  $1\frac{1}{2}$  lin.

*Hab.* —?

Cab. Cuming.

**NEERA DIDYMA.** *N. testd oblongd, lævigatd, albd; costis duabus radiantibus; margine dorsali antico prominulo; rostro lato, subtruncato.* Long. 3; lat. 2; alt. 2 lin.

*Hab.* The west coast of Veragua, in twenty-six fathoms, mud; in society with *N. costata*.

*Cab.* Belcher.

On the anterior and ventral margin there is a disposition to the formation of a number of small ribs; the shell is otherwise smooth and left to the occupation of the two prominent ribs, which eminently distinguish it.

**NEERA ROSEA.** *N. testd oblongd, albidd, epidermide tenui striatd indutd; valvis inæqualibus, dextrd majori; rostro attenuato, roseo.*

Long.  $3\frac{1}{2}$ ; lat.  $1\frac{3}{4}$ ; alt. 2 lin.

*Hab.* New Guinea, in seven fathoms, mud; Cagayan, island of Mindanao; San Nicholas, island of Zebu, Philippines, in from five to thirty fathoms, sandy mud.

*Cab.* Belcher et Cuming.

Not unlike diminutive specimens of *N. cuspidata*; the anterior portion of the shell, however, does not occupy more than a third of its entire length; the beak is more attenuated and of a rose-colour; and I cannot perceive any vestige of the angular line which extends posteriorly from the umbo.

**NEERA PHILIPPINENSIS.** *N. testd oblongd, albidd, subplanulatd, epidermide tenui striatd indutd, in rostro brevi attenuatd; valvis inæqualibus, dextrd minori.* Long.  $2\frac{1}{2}$ ; lat. 1; alt.  $1\frac{1}{2}$  lin.

*Hab.* Cagayan, island of Mindanao, and Batangas, island of Luzon, Philippines; in from twenty to thirty fathoms, sandy mud.

*Cab.* Cuming.

**NEERA TRIGONA.** *N. testd trigond, albd, minutè sulcatd; latere antico retuso; rostro brevissimo, obliquo.* Long.  $2\frac{1}{2}$ ; lat.  $1\frac{1}{2}$ ; alt.  $1\frac{3}{4}$  lin.

*Hab.* —?

*Cab.* Cuming.

**NEERA IRIDESCENS.** *N. testd albidd, ventricosd, lævigatd, politd; valvis æqualibus, margine ventrali posticè emarginato; retusè rostratd.* Long. 8; lat. 4; alt.  $5\frac{1}{2}$  lin.

*Hab.* Sual, island of Luzon, Philippines; from five to seven fathoms, sandy mud.

**NEERA OPALINA.** *N. testd ovali, hyalind, lævigatd, politd, subplanulatd; valvis æqualibus; rostro gradatim elongato, obtuso.* Long. 6; lat. 2; alt.  $4\frac{1}{2}$  lin.

*Hab.* Bassey, island of Samar, Philippines; from four fathoms, among coarse sand and mud.

*Cab.* Cuming.

In the foregoing ventricose species the anterior portion of the shell is considerably dominant. In this flatter species the greater bulk is devoted to the formation of the rostrum.

**NEMEA LATA.** *N. testâ ovali, albidd, planulatâ, iridescente, lævigatâ, politâ; valvis æqualibus; rostro lato, gradatim attenuato, planulato, obtuso; margine ventrali posticè subemarginato.* Long. 12; lat. 4; alt. 7 lin.

**Hab.** Catbalonga, island of Samar, Philippines; from ten fathoms, soft mud.

**Cab. Cuming.**

These three latter species are aberrant, and hold the same relations to *Næra* as *Nucula arctica*, Brod. et Sow., and its congeners do to that genus.

Various species of *Mammalia* from Coban, in Central America, were exhibited. These specimens were from Mr. J. Gray, who in a letter addressed to the Curator, which accompanied them, observes that the collection contains the following species: viz. *Mustela frenata*, Licht., *Didelphys Quica*, *Heteromys Desmarestiana*, *Corsira tropicalis*, *Corsira Temiyas*, *Saccophorus Quachil*, *Mus Tuzamaca*, and *Mus Tegaina*; all of which species, with the exception of the first two, are new to science.

"Descriptions of new species of Shells about to be figured in the 'Conchologia Iconica,'" by Mr. Lovell Reeve, were read.

#### Genus CONUS.

**CONUS VIDUA.** *Con. testâ turbinatâ, albd, fusco subtilissimè reticulatâ, reticulis ruptis, subsparsis; fasciis binis nigerrimo-fuscis, maculis albis sparsis, irregulariter punctatis, cinctâ; spirâ concavo-depressâ, coronatâ, apice subobtusâ.*

**Conch. Icon.,** *Conus*, pl. 8. f. 45 a and b.

**Hab.** Island of Capul, Philippines (on the reefs); Cuming.

This curiously mottled Cone presents a somewhat different style of painting from the proximate species *C. Nicobaricus* and *nocturnus*.

**CONUS FURVUS.** *Con. testâ elongato-turbinatâ, angustâ, lævi, spirâ elatâ; luteolâ, fasciis duabus, latis, furvo-fuscis, cingulatâ; aperturâ lineari.*

**Conch. Icon.,** *Conus*, pl. 13. f. 69.

**Hab.** Islands of Ticao and Masbate, Philippines (found in sandy mud at low water); Cuming.

I have to thank Mr. Adamson of Newcastle for sending me this new and interesting Cone, a few specimens of which have been collected by Mr. Cuming in the localities above noted.

#### Genus PECTUNCULUS.

**PECTUNCULUS BICOLOR.** *Pect. testâ suborbiculari, umbones versus attenuatâ, longitudinaliter sulcatâ, sulcis numerosis, angustis; albidd, violaceo-nebulosâ, maculis trigonis ferrugineo-rubidis irregulariter pictâ.*

**Conch. Icon.,** *Pectunculus*, pl. 5. f. 20.

**Hab.** Gulf of California.

Mr. Gray appears to have mistaken this shell (Zoology of Beechey's Voyage in the Blossom) for the *Pectunculus inæqualis*.

**PECTUNCULUS PALLIUM.** *Pect. testâ obliquè ovatâ, subquadratâ, radiatim costatâ, costis lævibus, prope marginem subobsoletis; luteolâ, maculis rubidis, quadratis, sparsis, vividè pictâ.*

Conch. Icon., *Pectunculus*, pl. 5. f. 21.

*Hab.* Zanzibar.

This shell may be easily recognised by the dark ruddy spots which are sparingly scattered here and there upon the warm uniform ground which covers the surface. The cardinal portion of the shell is rather solid.

**PECTUNCULUS NODOSUS.** *Pect. testâ suborbiculari, fulvâ, furvâ castaneove variegatâ; radiatim costatâ, costis nodosis; intus albidâ, anticè fuscescente.*

Conch. Icon., *Pectunculus*, pl. 5. f. 21.

*Hab.* Ceylon.

The knobs on the ribs, by which this shell is chiefly characterized, are much more strongly developed on the posterior side of the shell; on the anterior side they are almost obsolete.

**PECTUNCULUS LINEATUS.** *Pect. testâ orbiculari, convexâ, subauriculatâ; decussatim striatâ, striis longitudinalibus fortioribus; albidâ, posticè et medianè maculis castaneis irregulariter nebulosâ, anticè lineis longitudinalibus castaneis vividè pictâ; umbonibus centralibus.*

Conch. Icon., *Pectunculus*, pl. 5. f. 25.

*Hab.* West Indies.

The painting of this species is not much unlike that of the *Pectunculus pennaceus*; the anterior side of the shell, however, is white and very peculiarly lineated.

**PECTUNCULUS OBLIQUUS.** *Pect. testâ transversâ, obliquè ovatâ; albido-rufescente, maculis cuspidiformibus spadiceis profusè pictâ; intus nigerrimo-fusca; umbonibus centralibus.*

Conch. Icon., *Pectunculus*, pl. 6. f. 33.

*Hab.* Swan River.

The whole of the inside of this shell, with the exception of the anterior margin and muscular impression, is of a very deep blackish brown.

**PECTUNCULUS TELLINÆFORMIS.** *Pect. testâ ovatâ, transversâ, subdepressâ, radiatim costatâ, costis subobsoletis; albidâ, anticè et supernè carneo-fusco tinctâ; intus subfusca, posticè albicante; umbonibus vix obliquis.*

Conch. Icon., *Pectunculus*, pl. 6. f. 34.

*Hab.* Rio Janeiro.

This shell differs from the preceding in being more transverse and faintly ribbed; the interior is not so dark, nor does the outer surface exhibit the least indication of any spots or other dark marks.

**PECTUNCULUS TENUICOSTATUS.** *Pect. testâ orbiculari, subventricosâ, subtilissimè costatâ, costis quasi filis, numerosis, interstitiis epidermide lineariter insertâ; fuscescente, costis pallidioribus; umbonibus subcentralibus.*

Conch. Icon., *Pectunculus*, pl. 6. f. 35.

*Hab.* Australia.

The valves of this shell are entirely covered with beautiful thread-like ribs, and the interstices are filled with fine roots of epidermis, arranged in from three to four rows.

Mr. Gould read a paper on the habits of *Leipoa*, drawn up from accounts which he had recently received from His Excellency G. Grey, Governor of South Australia, and Mr. Gilbert. The notes of these two careful observers, though made in distant parts of Australia, were confirmatory in all essential particulars of the account of the habits of this curious bird as published by Mr. Gould in his work on the Birds of Australia. The notes moreover contained various interesting additional facts, and were illustrated by sectional drawings of the mound constructed for the deposit of the eggs.

Mr. Gould then called attention to a new species of Kangaroo-rat, which he exhibited, and thus characterizes:—

*BETTONGIA CAMPESTRIS.* *Bett. vellere longo, molli; corpore supra fusco, albo-penicillato, subtus sordide albo; auribus mediocribus intus pilis sordide albis, subflavescentibus tinctis; tarsi longi, graciles, pilis pallidis, flavescenti-lavatis; cauda longa (capite corporeque ferè æquante) plerumque pilis brevibus, adpressis, pallide rufo-flavescentibus vestita, subtus et ad apicem pallidiore.*

	unc.	lin.
Longitudo ab apice rostri ad caudæ basin....	15	9
————— ad basin auris ....	2	8
————— <i>auris</i> .....	1	1
————— <i>caudæ</i> .....	14	0
————— <i>tarsi digitorumque</i> .....	4	10

*Hab.* South Australia.

In the texture and colouring of the fur this little animal greatly resembles the common European Hare. The under-fur is dense, long and soft; grey next the skin, and sooty brown externally; but this last colour is confined to the tip of each hair, there being a considerable space between the grey and brown portions, which is of a very pale yellowish brown: interspersed with the under-fur (especially on the back) is an abundance of very long and harsher hairs, the visible portion of which is of a brownish white colour, except the extreme point of each hair, which is blackish. The sides of the body are of a pale dirty yellowish tint, and the under parts are dirty white. The feet and tail are of an uniform very pale yellowish brown. The ears are short and rounded, but with the apical portion slightly contracted in width; they are well-clothed with pale dirty yellowish hairs, except on the fore-part of the outer side, where there is an admixture of deep brown hairs.

The following "Notices of Fishes newly observed or discovered in Madeira during the years 1840, 1841, and 1842," by the Rev. R. T. Lowe, M.A., Corresponding Member of the Zoological Society, were communicated to the Meeting.

## Family SCOMBRIDÆ.

## Genus SERIOLA, Cuv. and Val.

*SERIOLA GRACILIS.* *Ser. elongata, fusiformis; capite cubico, lateribus declivibus planis, oculis magnis: pinna dorsali prima triangulari, secunda altiore; secundæ analisque (antice elevatis) radiis posterioribus subproductis, in pinnulas subsecedentibus; pectoralibus lanceolatis elongatis, capite longioribus; ventralibus mediocribus.*

1<sup>ma</sup> D. 9; 2<sup>da</sup> D. 3 + 20; A. 3 + 20; P. 24; V. 1 + 5; C.  $\frac{4+IX}{4+VIII.}$ ;

M. B. 6. Squamæ lin. lat. 60.

A single individual of this species has occurred, said to have been thrown up in a gale. It measured six inches and three quarters in length. Its nearest ally is *S. bipinnulata* (Quoy et Gaim.), Jen. in Darw. Fish. p. 72. Like that species, it has no spine inclining forwards before the dorsal, nor any free spines before the anal fin; but in the more complete connection and regularity of the hinder rays of the second dorsal and of the anal fins, it possesses a degree more of the typical Serioline character than that species. Still it is not unlikely that a comparison of the two fishes may warrant, on some future occasion, their separation from *Seriola* into a genus, which may be called *Cubiceps*.

The lower jaw shuts within the upper, like a box-lid; forcibly reminding the observer of *Tetragonurus*, for a battered or bleached state of which fish this example might have been easily mistaken.

The colour was an uniform pale dull grey, with the fins and towards the back darker and brownish.

## Fam. CORYPHÆNIDÆ.

*BRAMA LONGIPINNIS.* *B. corpore abbreviato alto: squamis postice caudam versus antrorsum aculeato-umbonatis; pinna dorsali analique antice longe falcato-productis.*

D. 4 + 31; A. 2 + 26; P. 20; V. 1 + 5; C.  $\frac{4+IX}{4+VIII.}$ ; M. B. 7;

Sq. lin. lat. 41–45.

Though founded upon a single individual, this appears a truly distinct species in the above characters from *B. Raii*, Bl., of which it presents the general appearance, colour and habit. The example seen measured eighteen inches and a quarter in length, and was eight inches deep at the origin of the dorsal and anal fins. As settling, by its partially aculeate scales, the true position of *Taractes*, this fish has been a very valuable acquisition.

## Gen. TARACTES, nob.

*Char. Gen.*—*Corpus ovatum compressum (ad finem pinnae dorsalis analisque abrupte in caudam contractum), squamis cycloideis retrorsum aculeato-umbonatis muricato-asperum. Caput squamosum; oculis magnis; rostro brevissimo simo; rictu magno sub-*

verticali; dentibus *Brama* similibus subscobinatis recurvis, externis majoribus; palatinis vomereque armatis. *Operculum* simplex inerme. *Præoperculum* basi eximie dentato s. subcalcarato; suboperculo interoperculoque denticulatis.

*Pinna* malacopterygiæ, s. omnes radii mollibus. *Ventrales* subjugulares. *Pinna dorsalis* analisque unica conformis lata: *caudalis* simplex integra rotundata. *Membrana branchiostega* septem-radiata.

*Squamæ* magnæ trapeziformes postice emarginatæ cycloideæ; umbone in aculeum recurvato-erectum producto.

#### TARACTES ASPER.

D. 5 + 28; A. 3 + 20; P. 17; V. 1 + 5; C.  $\frac{4+VIII.}{3+VII.}$ ; M. B. 7;

*Squamæ* corporis in serie longitudinali 43 fere.

The generic name imposed at its first discovery on this particularly interesting, though plain and sober-coloured little fish, expresses the difficulty experienced in settling its relations of affinity, which are indeed so obscure and complicated, that but for the subsequent discovery of *Brama longipinnis*, with its similarly, though contrariwise, hooked scales, its true position, next to *Brama*, with analogies to many other families (e. g. *Zenidæ*, *Cuproidæ*, *Scombridæ*), must have remained in abeyance.

PTERACLIS PAPILIO. *P. longitudine altitudinem plus quater multiplicatam æquante: pinna dorsali prima analique cæruleo-violaceis, lituris inter radios aureo-viridibus postice biseriatis; hac radio secundo, illa quarto validiore, ceteris capillaceis flexuosis.*

1<sup>ma</sup> D. 35; 2<sup>da</sup> D. 6; A. 35; P. 18; V. 6; C.  $\frac{3+I.+VIII.}{3+I.+VII.}$ .

Nothing can exceed the splendour of the deep violet-blue, with the gold and green iridescent dashes or short stripes between the rays of the first dorsal and the anal fins. It resembles the breast of certain Humming-birds, and contrasts singularly with the pure uniform silvery whiteness of the whole head and body. The second dorsal fin, though very small, is sufficiently distinct in this species, and possibly has been merely overlooked or mistaken in imperfectly preserved specimens of others for an accidentally detached portion of the first dorsal fin. The proportions, not only of the depth, but of the head, eye, muzzle and thickness, differ notably from those assigned by MM. Cuvier and Valenciennes to their *P. oculata*, of which it wants besides the dorsal fin-spot. The ventral and caudal fins are also longer. It agrees in these and other points far better with *P. trichopterus*, *P. Carolinus*, or *P. guttatus* (*Coryphæna vetifera*, Pallas) of these authors, but differs from them still more widely than it does from *P. oculata*, in the numbers of the fin-rays.

#### ASTRODERMA PLUMBEUM.

The Madeiran *Astroderma* recorded under the name of *A. coryphanoides*, Bon. (Proceed. Zool. Soc. 1840, p. 37; Trans. iii. p. 7),

is probably a distinct and undescribed species. It differs from MM. Cuvier and Valenciennes' description of the Mediterranean fish, and from that by Risso of the same, under the name of *Diana semilunata*, in size, being only four instead of twelve or fifteen inches long; in proportions, the depth being contained three instead of not quite four times in the length, making it a deeper fish, and the length of the head equalling the depth; in having the eye exactly in, not partly before and altogether below the middle of the head, and the hinder nostril larger than the foremost; in the less height backwards of the dorsal and anal fins, and their nearer approach at their hinder ends to the root of the caudal fin. The pectoral fins are longer, and the ventral fins, instead of being very short, with the first spine strong and serrate, are half the length of the whole fish, with the first ray or spine feeble, weak, or slender, and perfectly even or entire; the other rays, especially the first, being produced into fine hair-like points. The scales are firmly fixed, not easily removeable. There is no trace of the two little oblique crests or ridges at the base of the caudal fin on each side the faint central keel, like those which the Mackerels have; and lastly, the pectoral and caudal fins, instead of a fine coral-red, are pale tawny or dirty yellowish white; the body being a dull silvery lead-colour, instead of silvery rose.

It were not safe, from inspection of a single individual of such small size, and in a genus hitherto consisting of a single species, to pronounce these characters of actual specific value; some, or perhaps all, may be due merely to age or sex. The name of *A. plumbeum* is therefore here proposed only provisionally for the Madeiran fish.

*Ausonia Cuvieri*, Risso, Hist. iii. 342. f. 28; Cuv. Règ. Anim. ii. 214, note.

*Larus imperialis*, (Raf.) Cuv. Règ. Anim. ii. 214; Cuv. et Val. ix. 412.

I shall take an early opportunity in 'The Fishes of Madeira' of furnishing a full account, with a figure from a fresh and perfect individual, of this little known, most rare, and interesting fish. The several discrepancies between my example, which is deposited in the Society's collection, and the former individuals on record, seem fairly attributable to the paucity of those before examined, or to imperfect means of observation. The Madeiran fish differs not more from each of those included in the above references than they do respectively from one another, whilst it presents an assemblage of characters only to be collected from them all.

This really fine and striking fish offers no ambiguities whatever of affinity, the very fishermen regarding it as some kind of "Dourado" (*Coryphæna*), which it resembles, both in general aspect and in the form of the head and profile. Something about the mouth and profile reminds one also of the turbot, whilst in the shape of the body, and perhaps of the dorsal and the anal fins, it resembles the "Enxareo" (*Caranx lina*, Geoffr.). The colour of the fins recalls to mind the *Lampris*.

The length of this example was five-eighths of an inch less than three feet.



## Fam. ZENIDÆ, nob.

**ZEUS ROSEUS.** *Z. roseus immaculatus inermis; pinna antica anali nulla, dorsali haud filamentosa; pinnis ventralibus amplis triangulari-ovatis.*

D. 8 + 27 v. 28; A. 1 v. 2 + 29; P. 14; V. 9; C.  $\frac{5+VI}{5+V}$ .  $\frac{4+V}{5+VI}$ ;  
M. B. 7 v. 8.

Two examples of this very handsome and most distinct new species of Dory have occurred. There is no danger of confounding it with any other of the genus yet recorded, for the *Z. Childrenii* of Bowdich, so obscurely indicated in the 'Excursions in Madeira,' was most probably the Boar-fish (*Capros Aper*, Lac.).

*Sternoptyx diaphana* (Herm.), Cuv. R. An. ii. 316. t. xiii. f. 1.

The acquisition lately of an example of this most rare and curious of fishes has confirmed a suspicion I have long entertained, that the true position of its genus is near *Zeus*. It has also some relation to *Trachichthys*, but I think only in the way of analogy.

This little fish was taken in August at sea, between Madeira and St. Mary's, the southernmost of the Azores, about eighty miles to the south-east of the latter island, in a calm smooth sea. It is not a little remarkable, that after so long an interval, *Sternoptyx diaphana*, originally discovered by Hermann so long ago as 1774, in the West India islands, should have been rediscovered thus near the Azores; that is, in the locality in which the cognate *St. Olfersii*, Cuv. l. c. t. xiii. f. 2, has yet alone been found.

## Fam. CAPROIDÆ, nob.

## Gen. ANTIGONIA, nob.

**Char. Gen.**—*Corpus* compressum rhombiforme, altitudine longitudinem subæquante. *Os* parvum haud protractile; dentibus conicis minutis. *Caput* asperum; genis operculoque squamosis. *Præoperculum interoperculumque* limbo denticulato nudo. *Oculi* magni, circulatim cristato-carinati, cristis denticulatis. *Squamæ* asperæ, pectinato-ciliatæ.

*Pinna dorsalis* unica, continua, ad angulum superiorem corporis nascens, antice alta; *analis* parte anteriore spinosa a posteriore sinu distincta: spinis utriusque striatis, squamosis; *pinnæ ventrales* majusculæ, ad angulum inferiorem corporis sitæ. *Pinna caudalis* simplex, truncata. *Membrana branchiostega* septem-radiata.

**Obs.**—Species adhuc unica, Maderensi-Atlantica, rarissima parvula rubescens Caproidea. Pinnarum spinæ validæ, striatæ, squamulis imbricatis vestitæ, membrana nuda. Capite armato s. præoperculo interoperculoque cristisque ossium omnibus denticulatis, dentibusque brevibus conicis scobinatis, squamisque asperis ciliatis, ad Percidas per *Enoplosus* Lac. dum tendit, a Chætodontibus (e. g. *Platax*, *Drepane*) Coryphænidisque (e. g. *Pepriilus*, *Apolectus*), quibus forma aspectuque simillima, recedit. Iisdem characteribus,

necnon cauda lineaque laterali simplicibus, spinisque ante pinnas verticales liberis nullis, Scombridis (e. g. *Blepharis*, *Gallichthys*, *Argyreosis*, *Vomer*, *Hynnus*), forma similibus, magis ac magis distat. Pluribus quinetiam notis *Equulam* ac *Gerrem*, e. g. *Gerrem Plumieri* Cuv. et Val. t. 167, revocat in mentem. A *Capro* Lac. forma, ore vix protractili, pinnaque dorsali unica continua antice alta differt.

#### ANTIGONIA CAPROS.

D. 8 + 34; A. 3 + 33; P. 14; V. 1 + 5; C.  $\frac{4+I+V}{3+I+IV}$ ; M. B. 7.

A single individual only of this most curious and interesting little fish has yet appeared. It forms a most distinct genus, throwing considerable light on the affinities of several other genera, which, before its discovery, had been placed very much at random.

#### Fam. MUGILIDÆ.

*Mugil Cephalus*, L. Cuv. et Val. xi. t. 307.

I procured three or four examples of this species by dragging with a net at the mouth of the Machico river. They were all caught in perfectly fresh water, in a place which was quite cut off from all communication with the sea, except in the time of winter-floods or particularly high tides. The species was quite unknown to the fishermen.

*Mugil auratus*, Risso.

*M. chelo*, Syn. 184; nec aliorum.

*M. Maderensis*, Suppl. in Proceed. 1839, p. 82; Trans. iii. p. 8.

The usual exposure of the ends of the maxillary in the Madeiran fish prevented an earlier recognition of its proper name and synonym. They are only occasionally, and, except in full-sized fishes, rarely,—not generally or characteristically, as must be inferred from MM. Cuvier and Valenciennes' account of the species,—“entièrement cachés,” although their figure represents them more correctly partially exposed.

#### Fam. Gobiidæ.

*Blennius parvicornis* of my Suppl. (Proceed. 1839, p. 83; Trans. iii. p. 9), but not of MM. Cuvier and Valenciennes, proves to be a mere variety, or perhaps monstrous state, with a notched dorsal fin, of the common *Bl. palmicornis*, Cuv. and Val. It is *Bl. palmicornis*, var.  $\gamma$  *strigata*, nob. Another var. ( $\delta$  *sinuata*, nob.) of the same species has the dorsal fin merely faintly sinuate, instead of notched like var.  $\gamma$ , in the middle. As for the true *Bl. parvicornis* of Cuvier and Valenciennes, which, having the dorsal fin even\*, cannot be referred correctly to either of these states of the species, I feel authorized, after examination of perhaps some hundred individuals of this common little fish, with a particular view towards the confirmation of the form in question as a species, to pronounce it a mere trivial and accidental aberration (so far at least as concerns the Madeiran

\* “Sa dorsale est continue.” Cuv. et Val. xi. 335.

individual alluded to by MM. Cuvier and Valenciennes) of the typical common state (var. *a*) of *Bl. palmicornis*.

**PHOLIS TRIGLOIDES.**

*Pholis levis*, Syn. 185 ; Suppl. in Proceed. 1839, p. 83 ; in Trans. iii. 9.

This fish proves to be distinct specifically from the British *P. levis*, Fl., of which I had considered it at first a mere variety. This correction has been recently confirmed, on a comparison of specimens, by my friend Mr. Jenyns, who finds the eyes in the Madeiran fish "more than twice the size of those of *P. levis*, Fl., not to mention other differences." I am also so far satisfied as anything short of an inspection of their specimens can warrant, that *Bl. trigloides* of MM. Cuvier and Valenciennes, which even by their own showing\* is misplaced in their genus *Blennius*, is founded, at least in part†, on an example of this species, for which I therefore now propose the name of *Pholis trigloides*, it being a genuine member of the genus *Pholis* of Fleming.

**PHOLIS BUFO.** *P. fusco-nigrescens, versicolor, mox pallide cervina, nigro maculata et punctata, magna, pigra: pinnis pectoralibus nigro maculatis, maculis transverse fasciatis: capite magno, crasso, obtuso; oculis nec magnis, nec extantibus, intervallo occipitali lato subsulcato: dentibus anticis abrupte et longissime productis, arcuato-incurvis.*

D. 12 + 19 v. 18; A. 20 v. 21; P. 13; V. 3; C.  $\frac{2+I+V}{2+I+IV}$ ; M. B. 6.

This ugly, heavy-looking fish attains the length of ten or twelve inches, and is at present certainly the giant of its genus, and even of the true Blennies. It is very rare, or rather local, and confined apparently to beaches covered with large rounded rocks or stones, amidst which a little fresh water finds its way into the sea. I have had from ten to twenty individuals, from two inches and a half in length upwards, all exhibiting the same characters.

**Fam. LABRIDÆ.**

Proceed. Zool. Soc. 1839, p. 84, *Erratum*. The two lowest paragraphs at the bottom of this page belong to the head "*Acantholabrus imbricatus*;" the specific character and fin-formula of which have been transposed, by an error in the printing, from their proper place immediately before the first of these two paragraphs, beginning "*Crenilabrus luscus*," to p. 86, where they will be found forming in Italics the second paragraph from the top.

**Fam. ESOCIDÆ.**

**Gen. ECHIOSTOMA, nob.**

*Char. Gen.*—*Corpus elongatum anguilliforme nudum. Caput ser-*

\* "Il n'y a point de tentacule au sourcil." Cuv. et Val. xi. 228.

† See Suppl. in Proceed., p. 83; Trans. iii. p. 9.

pentiforme, oculis magnis, rostro brevissimo obtuso, rictu magno longe diducto, mandibulæ inferioris symphysi barbulifero. *Dentes* conferti numerosi aciculares recurvi inæquales, quibusdam prælongis; intermaxillaribus vomere palatinis linguaque armatis. *Apertura branchialis* ampla. *Opercula* plana simplicia inermia. *Pinnæ pectorales* jugulares rudimentales pauci-radiatæ (s. quadri-radiatæ), prima superiore distincta (in filamentum longissime producta), tribus inferioribus brevibus membrana subcoalitis: *ventrales* abdominales (ad medium corporis sitæ octo-radiatæ): *dosarli anali* que parvis oppositis posticis, *caudali* parvo lunato-furcato subrudimentali approximatis.

#### ECHIOSTOMA BARBATUM.

D. 15; A. 18; P. 1 + 3; V. 8; C.  $\frac{5+V.}{5+VII.}$ .

*Stomias barbatus*, Cuv. R. An. ii. 283, 284?

This is very probably the fish briefly noticed by Cuvier under the above synonym. But it seems, at all events, sufficiently distinct generically from the *Esox* or *Stomias Boa* of Risso (Hist. iii. 440. f. 40), with which Cuvier associates it; but which, besides having other differences indicative of generic distinction, is figured by Risso as covered with large scales, like a *Microstoma* or *Chauliodus*. Nor can I find any trace of the Madeiran fish in Risso\*, or in any other work to which I have access. It may therefore be considered one of no less rarity than singularity of characters and aspect; linking the *Esocidæ* with the *Muraenidæ*, and indeed partaking more of the habit, form and colouring of the latter tribe than of the former.

A single example only has been taken in a net close in shore, measuring thirteen inches and a quarter long. It was wholly devoid of silver spots, but had two rather conspicuous rows of pale pore-like dots low down on the sides, and a most singular rose-coloured, pear-shaped spot, placed obliquely beneath and a little behind the eye, at the bottom of the cheek. This soon faded to white in spirits. The whole body was an uniform dark chocolate-brown, punctate with black dots disposed in bands or figures. The single beard is thick or broad and subcartilaginous, equalling in length the depth of the head. The opercles are of the usual strength and structure.

#### Fam. SALMONIDÆ.

##### Gen. AULOPUS, Cuv.

*Saurus Lacerta* (Risso), Syn. p. 188, is certainly an *Aulopus*; and notwithstanding the larger number (15–17) of its branchial rays, is also probably the *A. filamentosus* of Cuvier (Rég. An. xi. 315). The reference to Risso is in such case perfectly correct; but the name, of course, must sink into a synonym, the fish being generically quite distinct enough from *Saurus*, Cuv.

\* Cuvier speaks of his *Stomias barbatus* being equally with *Stomias Boa* a discovery of M. Risso's; but I can find no trace of the former fish in his 'Histoire,' or, as Cuvier cites it, the second edition of his 'Ichthyology.'

## Gen. SAURUS, Cuv.

I possess the head of a third Madeiran Saurine fish, belonging truly to the genus *Saurus*, and not to *Aulopus*; but the body having been destroyed, I must decline for the present attempting either to identify or to define it. It was of a mottled pale and scarlet colour, varied with brown or dusky, and had a distinct dark spot above at the tip of the muzzle.

## Gen. METOPIAS, nob.

I place here, as in some degree related to *Scopelus*, but merely provisionally, conceiving that further investigations may authorize its being formed into a new family, a most curious little fish, which I saw caught in a boat-scoop whilst swimming on the surface, about a league and a half from shore, on a hot calm day in September 1841. Although full-grown or adult, being in roe, it was only an inch and a half long, and was nearly altogether black.

With reference to its affinities and position in the Cuvieran system, let it be observed, that—

1st, it is decidedly Malacopterygious, and this without apparent affinity in other points to any known Acanthopterygious genus. If it recalls to mind in some respects *Pomatomus*, it altogether stands aloof in scales, dentition, single dorsal fin, small eyes, &c. from that genus. The fins resemble most those of a *Cyprinus*.

2ndly, the ventral fins are not abdominal, but thoracic, which at once opposes its insertion amongst *Cyprinidæ*, *Esocidæ*, *Salmonidæ*, and *Clupeidæ* of Cuvier. In *Aulopus*, Cuv., indeed, the ventral fins are subthoracic, and there are other points about *Metopias* indicating rather close alliance of some kind with *Scopelus*; but it has certainly no immediate natural affinity with the true *Salmonidæ*, or even with *Sauridæ*, either in scales, dentition, fins, or habit. It is also quite destitute of the artificial symbol of these families, having no trace of a second rudimentary or adipose dorsal fin.

3rdly, it differs *toto cælo* from *Gadidæ*; agreeing only with the rare *Mora Mediterranea*, Risso, in the thick cube-shaped head and short abrupt muzzle. The ventral fins, moreover, are thoracic, not jugular; and I could find no trace of a beard or barbule.

These considerations seem to point to the propriety of regarding *Metopias* as belonging to a new family or tribe of Thoracic Malacopterygians, ranging between *Salmonidæ* and *Gadidæ*; still it is very possible that a discovery of some yet unknown link with old-established groups may solve at once, as in the case of *Brama longipinnis* and *Turactes*, the problem of its true position. The following characters will serve meantime for its discrimination, whether they prove eventually of mere generic or still higher value.

## Gen. METOPIAS.

*Pinnae* malacopterygiæ; *ventrales* thoracicæ: *pinna dorsalis* unica; *adiposa* nulla; *caudalis* bifida. *Squamæ* parvæ læves (cycloideæ). *Dentes* minuti uniseriati; *palatinis* linguaue vomereque inermibus.

*Caput* magnum subcubicum nudum, fronte abrupto declivi, rostro brevi lato emarginato, rictu oblique ascendente, mandibula inferiore longiore: oculi minuti. *Opercula* integra cum toto capite inermia.

*Corpus* antice crassum, postice compressum; cum capite clavæ-forme.

*Pinnæ* omnes amplæ, nudæ.

METOPIAS TYPHLOPS.

D. 4 + 14; A. 4 + 7; P. 15; V. 1 + 7; C.  $\frac{3v.4 + \overline{I. + IX.}}{3v.4 + \overline{I. + VIII.}}$ .

*Piscis* admodum pusillus, nigricans, capite longitudinaliter exilissime striato. *Radii* quatuor primi dorsales et anales cum primo ventrali simplices, sed minime spinosi; ceteris furcatis vel ramosis.

Fam. CLUPEIDÆ.

CLUPEA LATICOSTA.—“*Arenque a casta larga.*” *C. edentula elliptica, lateribus latis planis, dorso abdomineque æqualiter convexis; operculis suborbitariisque obsolete striatis, illis intus gulaque nigris: squamis lunatis, linea laterali obsoleta s. nulla; pinna dorsali centrali, anali subelongata, caudali lobis gracilibus angustis, pectoralibus operculo subremotis.*

D. 3 + 15; A. 18 + 2; P. 1 + 15; V. 1 + 7; C.  $\frac{4v.5 + \overline{I. + IX.}}{5 + \overline{I. + VIII.}}$ ;

M. B. 6 utrinque.

I had long since seen, and have often heard of this deep-sided, larger sort of Madeiran Herring, or “*Arenque*,” from the fishermen, but only recently obtained an opportunity of examining it, and of discovering it to be a new species, nearest to the Pilchard; but differing chiefly in its greater size, greater depth, approaching that of *C. Leachii*, Yarr., six, not eight-rayed branchial membrane, and in the production of the last two rays of the anal fin. Like the Pilchard, it has the dorsal fin in the centre of gravity, and the subopercle cut square at the bottom.

Fam. GADIDÆ.

*Merlucius vulgaris*, Cuv.

The remarks upon the Madeiran Hake (*Merlucius vulgaris*, Syn. p. 189) at pp. 37 and 38 of my Supplement (Proceed. Zool. Soc. 1840; Trans. iii. p. 15), and the idea of its distinctness as a species from the common British or Northern Hake, arose from tracing in the form of the dorsal and anal fins in the Madeiran fish, and in Salviani's figure of the Mediterranean Hake, a very appreciable difference from my friend Mr. Yarrell's representation of the British Hake at p. 177 of the second volume of the first edition of his ‘*Fishes*.’ Having requested his attention to the subject, I learn, however, from the corresponding chapter of his second edition, that this difference is either inconstant or attributable to a fault in the

former figure; and he has furnished a new engraving of the British Hake, which leaves no doubt of its identity with the Madeiran fish, according to my first determination in the 'Synopsis of the Fishes of Madeira.' No variation in the form of the fins, it may be added, has yet been observed in the Madeiran Hake.

*Mora Mediterranea*, Risso, Hist. iii. 224."

Fishing at a depth of three or four hundred fathoms off Magdalena, five leagues to the west of Funchal, I was fortunate enough last summer (1841) to obtain many examples of both sexes of this very rare, and, even in Madeira, almost unknown fish, which Cuvier has wholly omitted in the 'Règne Animal.' It forms a very distinct genus of *Gadidæ*; in shape and colours resembling *Phycis Mediterraneus*, but in the large thick subcubic head, abrupt short muzzle and large scales, recalling to mind a pale-coloured *Pomatomus telescopus*. At Magdalena this last-named fish is called "Pimentelle," whilst its common Funchal name, "Ribaldo," is assigned to *Mora Mediterranea*.

Gen. GADELLA, nob.

*Char. Gen.*—*Corpus* subellipticum, postice valde attenuatum compressum: capite nuchaque superne latis planis: rostro obtuso, rictu amplo largo, ore lato transverso, maxillis æqualibus dentibus subscoabinatis, quibusdam magnis uncinatis distantibus interspersis, vomere palatinis linguaque lævibus inermibus: barbula nulla.

*Pinna dorsalis analisque* unica conformis continua æqualis a nucha vel ano usque ad pinnæ caudalis basin protensa, antice angustissima, postice latior: dorsali prima plane nulla. *Pinnae pectorales* lanceolato-acuminatæ, tenues nec carnosæ: *ventrales* jugulares parvæ pluri-radiatæ, radiis primis duobus in filamenta productis. *Pinna caudalis* elongato-lanceolata.

*Obs.* Piscis pusillus, cinereo-fuscus, Motelliformis, oculis magnis, membrana branchiostega septem-radiata.

GADELLA GRACILIS.

D. fere 60; A. fere 60; P. 24; V. 7; C. XXV. fere; M. B. 7.

This new type approaches *Motella*, *Raniceps*, and *Brosmius*; differing from the two former in the entire absence of a nuchal groove, or of any rudiment of a first dorsal fin; and from them all in the absence of barbule, and in the shape and delicate (not fleshy) nature of the pectoral fins. A single example only has occurred, measuring four inches and one-eighth in length.

Fam. MACROURIDÆ, nob.

MACROURUS SERRATUS. *M. pallide cinereo-fuscus, scaber, squamis pectinato-striatis, inermibus, ecurinatis: capite rostroque brevibus, simplicibus (nec calatis nec carinatis); oculis rotundatis; dentibus scobinatis: pinnæ dorsalis primæ altæ radio primo valido, antice spinoso-serrato; ventralium in filamentum productis.*

1<sup>ma</sup> D. 1 + 9; 2<sup>da</sup> D. 100 fere; A. 80-90; V. 1 + 7 v. 8; P. 19 M. B. 7.

Cuvier, in a note at p. 337 of the 'Règne Animal,' vol. ii, affirms, from "an immediate comparison," the identity of Risso's *Lepidoleprus cælorrhynchus* of the Mediterranean with the *Macrourus rupestris* of Bloch, which is described and figured by that author with the first ray of the first dorsal fin distinctly serrated in front. Yet Dr. Richardson, in the Proceedings of the Zoological Society for 1839, p. 100, speaks of "examples of *cælorrhynchus* from the Mediterranean and also from Madeira"—meaning, by these latter, my *Macrourus atlanticus*, Proceed. Zool. Soc. 1839, p. 88; Trans. iii. p. 15—"both in the Society's Museum, none" of which "have the first dorsal ray serrated."

Awaiting, therefore, further definitive information regarding the true *L. cælorrhynchus* of Risso, in reference to this character, I am compelled to give a distinct name to this second Madeiran species of *Macrourus*, which has the dorsal spine serrated at its fore-edge, but which, by its shorter muzzle and somewhat smaller and rounder eyes, appears, waving the question as to the serrature or non-serrature of the dorsal spine in Risso's fish, to approach even nearer than *M. atlanticus* to his *L. cælorrhynchus*.

A single example only has occurred, which was not seen till it had been partly dried.

MACROURUS LÆVIS. *M. pallidus, griseus, lucidus, lævigatus s. exilissime areolato-scaber, inermis; squamis inconspicuis minutis: capite rostroque acuto abbreviatis, simplicibus (nec cæclatis nec carinatis); oculis rotundatis; dentibus in maxilla inferiore validis, uniseriatis: pinnae dorsalis primæ radio primo inermi; ventralium simplici.*

1<sup>ma</sup> D. 1 + 9; 2<sup>da</sup> D. et A.  $\infty$ ; P. 15; V. 1 + 7; M. B. 7.

This third Madeiran species of *Macrourus* is immediately distinguishable from the other two by its glossy, sleek or apparently naked appearance, caused by the fineness and minuteness of its areolæ or scales. It is also a more elongated fish. In the formation and proportions of the head, eyes and muzzle it nearly agrees with *M. serratus*, and it has also the cheeks plain and flat, without the strong sculptured subocular keel which gives so singular and trigloid an aspect to the head of *M. atlanticus*.

The only individual which has occurred was sixteen inches long.

Fam. OPHIDIIDÆ.

Gen. DIAPHASIA, nob. (*Les Fierasfers*, Cuvier.)

*Diaphasia acus.*

*Ophidium fierasfer*, Risso, iii. 212. No. 99.

*Les Fierasfers* (*Ophidium imberbe*, L.), Cuv. Règ. Anim. ii. 359.

The occurrence in Madeira of a single individual, imposes the necessity of proposing, in lieu of the barbarous vernacular appellation *Fierasfer*, a name founded on an obvious character, and accordant with the rules of scientific nomenclature.



## Fam. DIODONTIDÆ.

*Diodon reticulatus*, L. Syn: p. 193.—*Erratum*. Expunge in the synonyms, "Le Diodon orbe *Lacepède*"; and for "*Diodon rivulatus*," read *Diodon tigrinus*.

## Fam. SQUALIDÆ.

*Carcharias falcipinnis*, Proc. Zool. Soc. 1839, p. 90; Trans. iii. p. 18.

This proves, as it was suspected, to be the *Squalus ustus*, Dum.; that is, *Carcharias* (*Prionodon*) *melanopterus* (Q. et G.) of MM. Müller and Henle.

*Carcharias microps*, Proc. Zool. Soc. 1840, p. 38; Trans. iii. p. 18.

This again may perhaps be found to be identical with the imperfectly known *Squalus obscurus*, Lesueur (*Carcharias* (*Prionodon*) *obscurus*, Müll. et Henle), concerning which, however, the information hitherto afforded is too scanty to allow the immediate adoption of the name. *Carcharias microps* differs from *C. P. Sorrah*, Val., as described and figured by MM. Müller and Henle, in the equiserrate teeth, the longer and narrower pectoral fins, the smaller eyes and shorter muzzle. It differs again from *C. P. Henlei* (Val.), Müll. et Henle, in the long and black-tipped pectoral fins.

## Fam. CENTRINIDÆ.

CENTROPHORUS CALCEUS.—"*Sapata*."

*Acanthidium calceus*, Proc. Zool. Soc. 1839, p. 92; Trans. iii. p. 19.

Although I have not yet succeeded in obtaining the male of this Shark, I perfectly concur in MM. Müller and Henle's suggestion (Plag. 2<sup>ter</sup> Nachtr. p. 199), that it will probably prove to belong to their genus *Centrophorus*, with which I was unacquainted at the time of its former publication. It is however quite distinct from either of the species they describe.

The other little shark, *Acanthidium pusillum*, nob., with which at that time, in expectation of MM. Müller and Henle's work, I preferred associating it, though not without considerable scruple, to forming a new genus for a single species, is I think distinct specifically from *Spinax niger* (Buon.) of these authors (*Sq. Spinax*, L., *Acanthidium Spinax*, nob.), with which they\* have supposed it identical. It must retain also the name which I have given it; that of *Spinax*, which MM. Müller and Henle, after the Prince of Canino, have assigned to the same combination of characters, belonging, by the right of priority†, to the distinct generic group to which these authors have assigned the name already otherwise or in a wider sense employed by Risso, of *Acanthias*, and the type of which is the *Squalus Acanthias*, L.

## Fam. RAIIDÆ.

TORPEDO PICTA. *T. supra purpureo-fusca (sepiolina) maculis albidis reticulato-marmorata: corpore latiore quam longo, cauda abbreviata multo longiore; pinna caudali altiore quam longa; ventralibus amplis, dimidio caudæ longioribus: spiraculis septem-dentatis.*

\* 2<sup>ter</sup> Nachtr. p. 199.

† Cuv. Règ. Anim. ii. 391, 392

*Torpedo marmorata*, Syn. Mad. Fish. p. 195; nec Risso, nec aliorum.

The closer analysis which, since the publication of the Madeiran fish under the name of *T. marmorata*, Risso, this genus has received from MM. Müller and Henle, authorizes the proposal of it as a distinct and seemingly new species. It agrees with *T. marmorata* in the shape and relative proportions of the body-disc, the tail and caudal fin; but the distance from the root of the ventral fins to their free hinder edge considerably exceeds the distance from their hinder edge to that of the caudal fin; the teeth of the spiracles are not less developed in full-grown fishes of a foot and a half in length than in younger examples; and lastly, the colours are liable to no variation, and are very different from those of any of the varieties of *T. marmorata* enumerated by MM. Müller and Henle. I regret I am unable at the present moment to compare the dentition with that of *T. panthera* (Ehr.), Müll. und Henle, Nachtr. p. 193.

*Torpedo hebetans*, Syn. p. 195 (*Raia hebetans*, Müll. und Henle, Nachtr. p. 194), in the remarkable notch on each side at the outer extremity of the front margins, most resembles *T. nobiliana* (Buon.), Müll. und Henle, p. 128. The disc of the body however was an inch broader than long, and the colours were too different in the only example (a male) which has yet occurred of the Madeiran fish to allow, without more evidence, its junction with this or any other Mediterranean species.

*Raia Maderensis*, Syn. p. 195. I am not quite prepared to acquiesce in MM. Müller and Henle's reference of this to *R. undulata* or *mosaica*, Auct. (See Müll. und Henle, p. 134, and Nachtr. p. 194.) The Madeiran fish is generally more or less completely rough beneath, and always coarsely shagreened *all over* on the upper surface. However, this discrepancy with their account of *R. undulata* might be due to the small size of their specimens; but there is also still some further disagreement with regard to the large prickles in the middle of the back; and the colours, which are constant in the Madeiran fish, agree only with their var. 3.

*Raia oxyrhynchus* (Will.), Suppl. Mad. Fish. p. 92 (see Müll. und Henle, 2<sup>ter</sup> Nachtr. p. 200) is truly the *R. oxyrhynchus*, Linn., of Müller and Henle, p. 148, as distinguished from the nearly allied *R. lintea* of Fries.

PTEROPLATEA HIRUNDO. *P. glabra, supra unicolor hepatica, rostro vix prominulo, pinnis pectoralibus margine anteriore utrinque convexo, dein apices versus concaviusculo, corpore (postice convexo) plus duplo latiore quam longo, cauda brevissima dimidio corporis brevior, subtus linea elevata carinata, supra simplici, apicem versus quadrangulati: tentaculis pone spiracula nullis.*

*Trygon altavela*, Suppl. in Proceed., p. 92; in Trans. iii. p. 20; omisso synon. Cf. Müll. und Henle, 2<sup>ter</sup> Nachtr. p. 200.

Judging from MM. Müller and Henle's account of the species of this genus, the Madeiran fish is not only distinct from the Mediterranean *πτερυπλατεία* of F. Columna, to which I formerly referred it, but from every other. It differs from *Pt. altavela*, Müll. und Henle,

in the uniformity of colour of the body and tail above ; in having the fore margin of the wings convex ; in their greater width from point to point ; in the tail being simple, or without any trace of fin, raised line, or keel, above ; and lastly, in the absence of any kind of tentacle behind the spiracles. In the second and last of these characters it approaches much more nearly the American *Pt. maclura*, Müll. und Henle, but differs in smoothness when adult, in colour, greater width of body, and in the tail being sharp-edged or fin-carinate beneath. From the Indian *Pt. micrura*, Müll. und Henle, it is abundantly distinct.

June 27, 1843.

William Yarrell, Esq., Vice-President, in the Chair.

The reading of the Rev. R. T. Lowe's paper on the Fishes of Madeira was resumed.

Mr. Gould called attention to a rare species of Kangaroo living in the Society's menagerie.

An extensive collection, consisting of ninety-six specimens of Fishes, one Snake, a species of *Pteropus*, a Crab, and four nests of the Weaver-bird, was laid before the Meeting. These specimens, which are from Ceylon, were presented to the Society by D. Kelaart, Esq., Corresponding Member.

Seven bottles of Reptiles from India, presented by Mr. Shaw, the son of A. N. Shaw, Esq., Corresponding Member, and a collection of Bird-skins (also from India), presented by the Rev. F. W. Hope, were likewise laid before the Meeting.

July 11, 1843.

Lovell Reeve, Esq., in the Chair.

The reading of the Rev. R. T. Lowe's paper on the Fishes of Madeira was concluded.

"Descriptions of new species of *Nucula*, from the collections of Sir Edward Belcher, C.B., and Hugh Cuming, Esq.," by Mr. Hinds, were read.

**NUCULA CUMINGII.** *Nuc. testd elliptica, tenui, epidermide virente induta, antice abbreviata, subrostrata, postice elongata, rotundata; margine ventrali acuto, antice submarginato, dorsali postico, prominulo; cardine antice dentibus 6, postice 19-20. Long. 11; lat. 4; alt.  $7\frac{1}{2}$  lin.*

**Hab.** The Asiatic analogue of *N. obliqua*, and is widely diffused over the seas of the Indian Archipelago. It has been obtained at New Guinea; Straits of Macassar; Bolinao, San Nicholas, Sual and Bassey in the Philippines; Singapore; and Straits of Malacca; in a depth of water varying from seven to twenty-three fathoms, on a floor of mud and sandy mud.

**Cab.** Belcher et Cuming.

It is distinguished from *N. obliqua* by the disposition to rostration of the anterior limb, prominent dorsal margin, slight indentation at the anterior part of the ventral margin, and larger size.

**NUCULA MITRALIS.** *Nuc. testd conoidali, solidula, epidermide fusca induta, antice brevissime abbreviata, recta; margine dorsali postice inclinata, marginibus ventralibus crenulatis; cardine antice dentibus 10, postice 28-30. Long.  $5\frac{1}{2}$ ; lat. 3; alt. 4 lin.*

**Hab.** Straits of Malacca; from seventeen fathoms, mud.

**Cab.** Belcher.

The very contracted and straight anterior margin of this shell gives it the shape of a mitre, or other similar elevated head-dress.

**NUCULA PULCHRA.** *Nuc. testd elliptica, solida, sulcata, interstitiis transversim striatis; marginibus ventralibus crenulatis; cardine antice dentibus 9, postice 27-29. Long. 7; lat. 4; alt.  $5\frac{1}{2}$  lin.*

**Hab.** L'Agulhas Bank, Cape of Good Hope; from seventy fathoms. **Cab.** Belcher.

**NUCULA DIVARICATA.** *Nuc. testd elliptica, antice excavata, subacuminata, postice rotundata; lineis divaricatis, striata; marginibus ventralibus crenulatis; cardine antice dentibus 7, postice 22-24. Long. 5; lat.  $2\frac{1}{2}$ ; alt. 4 lin.*

**Hab.** China Sea; from eighty-four fathoms.

**Cab.** Belcher.

No. CXXVI.—PROCEEDINGS OF THE ZOOLOGICAL SOCIETY.

A single valve only was brought up from this great depth, and presents a character in its sculpture which has not hitherto been met with in any recent species, but which is also found in the following. This peculiarity consists of the presence of lines diverging from an angle near the middle of each valve. It however occurs in an English fossil, *N. Cobboldiæ*.

**NUCULA CASTRENSIS.** *Nuc. testâ ellipticâ, anticâ rotundatâ, epidermide olivaceâ indutâ; lineis divaricatis; marginibus ventralibus crenulatis; cardine anticâ dentibus 5, posticâ 11. Long. 3; lat.  $1\frac{1}{2}$ ; alt. 2 lin.*

*Hab.* Sitka, North-west America. A single specimen was dredged in the harbour, from seven fathoms, sand.

*Cab.* Belcher.

**NUCULA TUMIDA.** *Nuc. testâ ellipticâ, tumidâ, striatâ; marginibus ventralibus integerrimis; cardine anticâ dentibus 6, posticâ 15; intus leviter striatâ. Long.  $4\frac{1}{2}$ ; lat.  $2\frac{1}{2}$ ; alt.  $3\frac{1}{2}$  lin.*

*Hab.* Straits of Malacca; from seventeen fathoms, among mud.

*Cab.* Belcher.

**NUCULA MARMOREA.** *Nuc. testâ ellipticâ, solidulâ, albiddâ, sulcatâ; liris ad angulum planulatis; latere antico brevi, subacuminato; marginibus ventralibus minutè crenulatis. Long.  $2\frac{1}{3}$ ; lat. 1; alt.  $1\frac{1}{3}$  lin.*

*Hab.* Straits of Malacca; from seventeen fathoms, in society with *N. tumida*.

*Cab.* Belcher.

**NUCULA DECLIVIS.** *Nuc. testâ parvâ, obliquè ellipticâ, solidulâ, epidermide tenui, fuscâ indutâ; latere antico brevi; margine dorsali longè inclinâtâ, ventralibus crenulatis. Long. 2; lat.  $1\frac{1}{3}$ ; alt.  $1\frac{1}{2}$  lin.*

*Hab.* —?

*Cab.* Belcher.

A still more oblique shell than *N. pisum*, to which it is closely allied.

**NUCULA NANA.** *Nuc. testâ minimâ, trigono-ellipticâ, lævigatâ, nitidâ; marginibus ventralibus minutissimè crenulatis; cardine anticâ dentibus 5, posticâ 11; umbonibus fuscis. Long. 1; lat.  $\frac{1}{2}$ ; alt.  $\frac{3}{8}$  lin.*

*Hab.* Cagayan, island of Mindanao, Philippines; from twenty-five fathoms, among coarse sand.

*Cab.* Cuming.

**NUCULA BELCHERI.** *Nuc. testâ politâ, oblongâ, sulcatâ, anticâ elongatâ, truncatâ, angulatâ; ab umbone biangulatâ, tertio intermedio minori; dentibus numerosis, serierum ambarum numero subæquali; margine ventrali subrecto. Long. 12; lat.  $3\frac{1}{2}$ ; alt.  $5\frac{1}{2}$  lin.*

*Hab.* L'Agulhas Bank, Cape of Good Hope; dredged from a depth of forty to fifty-four fathoms.

*Cab.* Belcher.

**NUCULA SEROTINA.** *Nuc. testâ politâ, oblongâ, sulcatâ, anticè elongatâ, rotundatâ, ab umbone angulatâ; margine dorsali antico subprominulo; umbonibus elevatis.* Long. 6; lat. 2; alt. 3 lin.

*Hab.* Singapore; from seven fathoms, mud.

*Cab.* Cuming.

This closely resembles a fossil from the Sutton crag. The latter is a larger shell, of somewhat different proportions, and wants the rounded anterior slope of the recent species.

**NUCULA TENELLA.** *Nuc. testâ oblongâ, lævigatâ, tenui, planulatâ, anticè elongatâ, rotundatâ; umbonibus parvis.* Long.  $4\frac{1}{2}$ ; lat.  $1\frac{1}{2}$ ; alt.  $2\frac{1}{2}$  lin.

*Hab.* Singapore; from seven fathoms, mud. In society with the preceding.

*Cab.* Cuming.

**NUCULA RETUSA.** *Nuc. testâ parvâ, nitidâ, lævigatâ, subæquilaterali, anticè retusâ, subacuminatâ; umbonibus elevatis.* Long.  $2\frac{3}{4}$ ; lat. 1; alt.  $1\frac{1}{2}$  lin.

*Hab.* St. Nicholas, Philippine Islands; Straits of Macassar.

*Cab.* Cuming et Belcher.

If the Lamarckian species, *N. nicobarica*,—a transversely elongated, finely striated shell, with both extremities rounded and lengthened anteriorly—is taken as a type of departure for the four preceding species, then *N. Belcheri* will be distinguished by its great transverse length, polished sulcated surface, angulated lines, truncated extremity, and three slight projections at the termination of the angles,—*N. serotina* by its polished sulcated surface, lengthened and rounded anterior extremity, and slightly prominent dorsal margin,—*N. tenella* by its flattened shape, smooth polished surface, and by being lengthened and rounded anteriorly,—and *N. retusa* by being nearly equilateral, smooth, polished, and with the anterior portion slightly disposed to terminate in a point.

**NUCULA CRASSA.** *Nuc. testâ oblongâ, ventricosâ, crassâ, sulcatâ, anticè arcuatè rostratâ, excavatè angulatâ; liris rotundatis; posticè valdè rotundatâ; intùs pallidè luteâ.* Long. 14; lat. 6; alt. 10 lin.

*Hab.* Australia.

*Cab.* Cuming.

**NUCULA LATA.** *Nuc. testâ oblongâ, politâ, planulatâ, lineis impressis excavatâ; anticè elongatâ, latè rostratâ, posticè rotundatâ; margine dorsali antico prominulâ; umbonibus parvis.* Long. 8; lat. 2; alt. 4 lin.

*Hab.* New Guinea; in from five to twenty-three fathoms, among mud.

*Cab.* Belcher.

**NUCULA CÆLATA.** *Nuc. testâ luteo-virente, oblongâ, argutè sulcatâ; anticè arcuatè rostratâ, sulcis paululùm oblitteratis; umbonibus prominulis.* Long. 7; lat. 3; alt. 4 lin.

*Hab.* California, between  $38^{\circ} 18'$  and  $34^{\circ} 24'$  north latitude;

namely, at Russian Bodegas, San Francisco, and Santa Barbara, in from six to ten fathoms.

Cab. Belcher.

More ventricose and acutely beaked than *N. pella*, and presenting a partial obliteration of the sulci near the anterior dorsal margin.

*NUCULA VENTRICOSA.* *Nuc. testd oblongd, pallidè luted, ventricosd, sulcatd; anticè subrectè rostratd, umbonibus magnis, prominentibus; margine ventrali anticè coarctatd.* Long. 7; lat.  $3\frac{1}{2}$ ; alt. 5 lin.

*Hab.* Straits of Malacca; from seventeen fathoms, mud.

Cab. Belcher.

The character of the sulcation here is very different to that of the preceding species and of *N. pella*. Here it presents the most usual features of regular furrows with intervening ridges; but in the other two species the ridges are inclined planes, having an inclination towards the ventral margin. In this direction they consequently present a number of step-like elevations, but not in the contrary.

*NUCULA RECTA.* *Nuc. testd oblongd, tumidd, inclinatè sulcatd, rectè et attenuatè rostratd, posticè rotundatd.* Long. 6; lat.  $2\frac{1}{2}$ ; alt. 4 lin.

*Hab.* New Guinea; in seven fathoms.

Cab. Belcher et Cuming.

*NUCULA EXCAVATA.* *Nuc. testd globosd, sulcatd, gibbosè rostratd, anticè carinatd; lunuld excavatd, ovali, striatd.* Long. 4; lat.  $2\frac{1}{2}$ ; alt.  $3\frac{1}{2}$  lin.

*Hab.* Panama; dredged among mud in thirty fathoms.

Cab. Belcher.

*NUCULA RETICULATA.* *Nuc. testd parvd, oblongd, sulcatd, striis longitudinalibus interstitialibus reticulatd; anticè arcuatè rostratd.* Long. 3; lat.  $1\frac{1}{2}$ ; alt. 2 lin.

*Hab.* Philippine Islands, in several localities: namely, Cagayan, island of Misamis, from twenty-five fathoms; Mindanao, from twenty-five fathoms, sandy mud; and Loay, island of Bohol, from sixty fathoms, clayey sand.

Cab. Cuming.

*NUCULA LYRATA.* *Nuc. testd oblongd, nitidd, angulatè sulcatd, acutè subrectè rostratd, posticè elongatd, rotundatd; margine ventrali acuto integro.* Long.  $9\frac{1}{2}$ ; lat. 4; alt. 5 lin.

*Hab.* Panama; from thirty fathoms.

Cab. Belcher.

*NUCULA PUELLATA.* *Nuc. testd oblongd, nitidd, leviter striatd, anticè breviter arcuatè rostratd, posticè rotundatd; prope umbones turgidd.* Long. 3; lat.  $1\frac{1}{2}$ ; alt. 2 lin.

*Hab.* Malacca; from ten to seventeen fathoms, coarse sand.

Cab. Cuming et Belcher.

*NUCULA CRISPA.* *Nuc. testd oblongd, turgidd, sulcatd, arcuatè ros-*



*trata, anticè ab umbonibus exarata, posticè obtusè carinata; lunula ovali.* Long. 3; lat.  $1\frac{1}{2}$ ; alt. 2 lin.

*Hab.* Gulf of Nicoya; from thirty-six fathoms.

*Cab.* Belcher et Cuming.

Mr. Lovell Reeve communicated a paper from Mr. Sylvanus Hanley, containing the following "Descriptions of five new species of bivalve Shells, from the collection of W. Metcalfe, Esq."

#### Genus SOLEN.

**SOLENI PHILIPPINARUM.** *Sol. testâ lineari, convexâ, crassâ, subarcuatâ, albido-lutescente; latitudine longitudinem quintuplo superante; margine posticè rotundato, anticè convexo; natibus ad quintam partem totius latitudinis collocatis; epidermide amplâ, rugosâ, impolitâ, olivaceo-flavescente; dente valido, acuto, in utrdque valvâ prominente.* Lat. 1; long. 5 poll.

*Hab.* ad Insulas Philippinarum.

A species nearly allied to the *S. ambiguus* of Lamarck, from which however it differs, both in its greater curvature and in the absence of the discal rays which adorn that species. Its breadth is throughout equal, and the umbones are considerably flattened.

**SOLENI ACINACES.** *Sol. testâ lineari, nived, subdepressâ, arcuatâ, posticè abruptâ, anticè attenuatâ, rotundatâ; latitudine longitudinem propè quadruplò superante; margine postico vix convexo; epidermide nitidâ flavescente; cardine terminali, dente in utrdque valvâ unico, rotundato.* Long.  $\frac{3}{4}$ ; lat. 3 poll.

*Hab.* — ?

A shell scarcely to be confounded with any of this genus, but with somewhat the aspect of *S. scalprum*.

**SOLENI CYLINDRACEUS.** *Sol. testâ lineari, rectâ, cylindraceâ, subepidermide fugaci, albâ, rubido-purpurascente variegatâ; latitudine longitudinem sextuplo superante; margine anticè rotundato-obtusâ, posticè abrupto, concavo; cardine terminali, dente sub-lunari in utrdque valvâ prominente.* Long.  $\frac{1}{2}$ ; lat. 3 poll.

*Hab.* — ?

A tolerably strong shell, intermediate between the *S. linearis* of Wood and the *S. brevis* of my descriptive Catalogue. The former species is considerably narrower from the umbones to the ventral margin, these proportions being precisely reversed in the latter. The colouring likewise, which in the adult is almost entirely confined to the posterior half, differs from its arrangement in the *S. brevis*.

**MESODESMA TRIQUETRUM.** *Mes. testâ obliquè triangulari, valdè inæquilaterali, crassissimâ, tumidâ, leviusculâ, sordidè albâ; posticè brevi, rotundatâ, anticè productâ, subacuminatâ, subrostratâ; margine antico declivi, ventrali arcuato; pube depressâ; foveâ ligamentali inter nates distantes planè hiantè; dentibus lateralibus magnis, validis.* Long.  $\frac{7}{8}$ ; lat. 1 poll.

*Hab.* — ?

I know of no species which could possibly be confused with this extraordinary shell, which, from the peculiar triangular cavity between the beaks (as in the genus *Schizodesma* of Gray), may eventually prove the type of at least a subgenus. In the unique specimen before me there is the appearance of ochraceous rays, but I do not venture to consider them as characteristic until the comparison with further specimens. The shape reminds one of *Mulinia Donaciformis*. The cardinal tooth is bifid in the left valve.

**MESODESMA PLANUM.** *Mes. testd ovato-sublenticulari, transversa, valde compressa, inaequaliter, utraque extremitate rotundata; sub epidermide corned, albida, laevigata; natibus elevatis, acutis; margine ventrali arcuato; fovea ligamentali angustata. Long.  $\frac{5}{8}$ ; lat. 1 poll.*

*Hab.* —?

A peculiarly flat shell, which is not unlike *M. complanatum*, but differs as well in the colouring of its epidermis as in many other particulars. From the little convexity of the dorsal margins, the beaks appear extremely angulated. The teeth are obtuse, and the lateral short and approximate.

*Note.*—The shells described by me in this and the preceding papers will be figured in Mr. Wood's second Supplement to the 'Index Testaceologicus.'

A new species of *Chiton*, from the Philippine Islands, was exhibited by Mr. Cuming, which was thus characterized by Mr. G. B. Sowerby:—

**CHITON BIRADIATUS.** *Chi. testd ovali, subelongata, subdepressa, obtuse angulata; arcis centralibus longitudinaliter minute scabrososulcatis; arcis lateralibus subelevatis, utrinque costis duabus bifidis valide irregulariter moniliformibus; arcis terminalibus radiatim rugoso-costatis, margine minutissime granuloso; colore pallide fulvo, griseo maculato; margine griseo fasciato. Long. .60; lat. .35.*

*Hab.* Dumaguete, Ins. Negros, Philippinarum. H. Cuming legit.

This species differs from *Ch. Janierensis* in having the lateral ribs bifid and the sculpture generally much more minute.

July 25, 1843.

William Yarrell, Esq., Vice-President, in the Chair.

A letter from E. L. Moore, Esq., Corresponding Member, dated Newfoundland, June 16, 1843, was read. It announced that that gentleman had forwarded, as a present to the Society, a young Harp-Seal and two heads of the Hooded Seal, preserved in brine.

Mr. Prince exhibited to the Meeting, on the part of Mr. Gould, nine new Birds, collected during the recent voyage of H.M.S. Sulphur, which, together with *Coryphilus Dryas*, exhibited by Mr. Gould at the meeting held on the 22nd of November 1842, and *Pteroglossus erythropygius* and *Pterocles personatus*, exhibited by him on the 14th of February 1843, comprise the whole of the ornithological novelties brought home by the expedition.

The species now exhibited were

**HALCYON SAUROPHAGA.** *Halc. capite, collo, dorso superiore et corpore subtus albis, cæteris partibus saturatè cæruleis, dorso virescente.*

Head, neck, upper part of the back and all the under surface white, with the exception of the lores, which are black, and a narrow longitudinal mark immediately behind the eye, which is deep blue; remainder of the upper surface, wings and tail deep blue, tinged with green on the back and scapularies; bill black; basal half of the under mandible horn-colour; tarsi and feet blackish brown, tinged with purple.

Total length,  $10\frac{1}{2}$  inches; bill,  $2\frac{3}{4}$ ; wing,  $4\frac{3}{4}$ ; tail,  $3\frac{3}{4}$ ; tarsi,  $\frac{3}{4}$ .

*Remark.*—A typical *Halcyon* and one of the largest of the genus, differing from every other species known, particularly the *Alcedo leucocephala* of Latham, which specific term would be much more appropriate for the present bird.

*Hab.* New Guinea.

**PIPIRA VITELLINA.** *Pip. vertice, vittâ dorsali, alis, caudâque nigris; mento, gula, pectore et torque nuchali vitellinis, partibus reliquis olivaceo-viridibus.*

Crown of the head, band across the back, wings and tail black; chin, throat, ear-coverts, chest and collar round the back of the neck, beautiful yolk-of-egg yellow; rump and upper tail-coverts olive-green; abdomen and under tail-coverts paler olive-green, into which the yellow of the chest gradually passes; bill black; legs yellowish brown.

Total length,  $3\frac{3}{4}$  inches; bill,  $\frac{5}{8}$ ; wing, 2; tail,  $1\frac{1}{8}$ ; tarsi,  $\frac{3}{4}$ .

*Hab.* Panama.

The only specimen procured is now in the British Museum.

**LEUCOSTICTE GRISEOGENYS.** *Leuc. fronte nigra, genis et occipite cinereis, reliquis partibus fuscis; tectricibus alarum, tectricibus caudæ superioribus et inferioribus, abdominisque plumis ad apicem roseo-marginatis.*

Forehead and throat shining black; cheeks and back of the head grey; general plumage umber-brown; wing-coverts, upper and under tail-coverts, flanks and abdomen, tipped with beautiful rosy red; primaries and tail-feathers brown, faintly margined with rosy red; bill yellow; feet black.

Total length,  $7\frac{1}{2}$  inches; bill,  $\frac{5}{8}$ ; wing,  $4\frac{1}{2}$ ; tail,  $3\frac{1}{2}$ ; tarsi, 1.

This is the largest of the *Fringillinae* Mr. Gould has yet seen; it is nearly allied to, but differs from, the *Leucosticte tephrocotis*, Swains., in the greater depth of its colouring, in the cheeks as well as the hinder part of the head being grey, and in the greater abundance of the rosy hue upon the abdomen and under tail-coverts.

**NECTARINIA FLAVIGASTRA.** *Nect. corpore supernè flavescente-olivaceo; lined superciliari et corpore subtùs nitidè flavis.*

Crown of the head, ear-coverts and all the upper surface yellowish olive; stripe over the eye and all the under surface bright yellow; bill and feet black.

Total length,  $4\frac{1}{2}$  inches; bill,  $\frac{3}{4}$ ; wing, 2; tail,  $1\frac{1}{2}$ ; tarsi,  $\frac{5}{8}$ .

*Hab.* New Ireland.

The single specimen procured is in the collection of J. O. Goodridge, Esq., Assistant-Surgeon of H.M.S. *Starling*.

**CACTORNIS INORNATUS.** *Cact. corpore superiore nigrescente-fusco, singulis plumis olivaceo-fusco non sine tincturâ rufescente marginatis; gula et corpore inferiore fulvis, plumis notâ centrali obscuriore.*

Crown of the head and all the upper surface blackish brown, each feather margined with reddish olive-brown, the secondaries, wing-coverts and tail being more broadly margined and inclined to buff; throat and under surface buff, each feather having a darker centre; bill horn-colour; feet blackish brown.

Total length, 4 inches; bill,  $\frac{1}{2}$ ; wing,  $2\frac{3}{4}$ ; tail,  $1\frac{3}{4}$ ; tarsi,  $\frac{3}{4}$ .

*Hab.* Bow Island.

The only specimen procured is said to be a female. This species is I believe the only insessorial form inhabiting the island. Its principal interest consists in its forming an additional species of a small group of birds hitherto believed to be peculiar to the Galapagos Islands.

In the possession of the Zoological Society, to whom it was presented by the Lords Commissioners of the Admiralty.

**PSITTACUS FLAVINUCHUS.** *Psitt. viridis, vittâ nuchali nitidè flavâ; remigum primorum pogoniis internis nigris, remigis primi pogonio externo saturatè cæruleo; reliquorum pogoniis externis ad basim saturatè viridibus, exinde cæruleis, remigum minorum pogoniis externis coccineo, viridi et cæruleo pictis, rectricibus utrinque tribus externis cum pogoniis internis ad basim coccineis.*

Head, throat and under surface light green; the feathers on the sides of the neck slightly margined at the tip with black; at the nape a broad band of beautiful yellow; back, scapularies and wing-coverts dark green, the latter with paler edges; first primary black on the inner web and deep blue on the outer, the inner webs of the remaining primaries black; the basal third of their outer webs green, and for the remainder of their length deep blue, the whole very slightly tipped with buff; first four primaries black on their inner webs; their outer webs crimson for more than the basal half of their length, then green, and lastly deep blue, the two latter colours gradually blending into each other; the rest of the secondaries black on their inner and green on their outer webs, with a spot of deep blue near the extremity; tail yellowish green, crossed on the middle by a broad band of dark green, the three lateral feathers with a patch of crimson on their inner webs; basal portion of the inner webs of all the wing-feathers on their under surface deep grass-green; bill horn-colour; feet mealy white.

Total length, 14 inches; bill,  $1\frac{3}{8}$ ; wing, 9; tail,  $5\frac{3}{4}$ ; tarsi, 1.

*Hab.* Shores of South America and the Pacific.

In the collection of the Zoological Society.

*COCYZUS FERRUGINEUS.* *Cocc. capite cinereo, dorso alisque saturate ferrugineo-fuscis, colore ad apices remigum primorum pallacente; caudæ in medio fusca, gradatim ad rectrices externas albescente; corpore subtus fulvo.*

Head grey, tinged on the crown with ferruginous; back and wings dark rusty-brown, becoming paler towards the extremities of the primaries, which are brown on their inner webs at the tip; two centre tail-feathers sandy buff, passing into brown at the tip; the two next on each side sandy at the base, deepening into brown, which is darkest on the outer web; that nearest the central feathers slightly, and the next largely tipped with white; the two lateral feathers on each side buff at the base, passing into white, the inner one of the two with a line of brown down the basal two-thirds of its length; all the under surface buff, palest on the throat; bill olive-black, under mandible yellow at the base; feet black.

Total length,  $11\frac{1}{2}$  inches; bill,  $1\frac{1}{8}$ ; wing,  $5\frac{1}{4}$ ; tail,  $6\frac{1}{4}$ ; tarsi,  $1\frac{1}{8}$ .

*Hab.* Cocos island, North Pacific.

In the collection of the Zoological Society.

*PENELOPE LEUCOGASTRA.* *Pene. capite et collo superiore olivaceo-fuscis, singulis plumis cinereo marginatis; corpore superiore et alis splendide fuscis nitore metallico; caudæ æneo-viridi, rectricibus externis latè albo marginatis; abdomine et femoribus albis.*

Head and upper part of the neck olive-brown, each feather margined with grey; back, wings and upper tail-coverts rich brown with a bronzy lustre; tail bronzy-green margined with bronzy-brown, all but the two centre feathers broadly tipped with pure white; chest dull brown, gradually passing into the white of the abdomen, thighs and vent; under tail-coverts light buff; bill and feet black.

Total length, 18 inches; bill,  $1\frac{1}{2}$ ; wing, 8; tail, 9; tarsi, 2.

*Hab.* —?

In the collection of the Zoological Society.

**LARUS BRACHYRHYNCHUS.** *Lar. capite, collo, corpore superiore, uropygio crissoque albis; dorso alisque cinereis; remige primo, ad pogonium externum et ad apicem, remigibusque sequentibus tribus, ad apicem, nigris; remigibus secundo, tertio et quarto, notâ cinereâ terminali; quinto vittâ nigra et apice cinereo.*

Head, neck, all the under surface, rump, upper and under tail-coverts and tail pure white; back and wings, including the primaries, grey, passing into white on the tips of the scapularies, secondaries, and all but the first five primaries, which are thus marked:—the outer primary has its external web and three inches of the tip of the inner web deep black; the next primary is tipped with black for three inches and a half on its outer, and two inches and a half on its inner web, and has a very minute speck of grey at the extreme tip; the third primary is tipped with black for two inches, and has a small spot of grey at the extremity; the fourth is tipped with black for an inch and a quarter, and has a larger spot of grey at the extremity than the third; and the fifth is crossed by an irregular band of black near the tip three-quarters of an inch wide, the extremity being grey, fading into white on the margin of the inner web; bill primrose-yellow; feet orange-yellow.

Total length, 14 inches; bill,  $1\frac{1}{2}$ ; wing,  $12\frac{1}{4}$ ; tail,  $5\frac{1}{4}$ ; tarsi,  $1\frac{1}{8}$ .

*Hab.* Russian America.

The species of *Ortyx* exhibited were

**ORTYX PARVICRISTATUS.** *Ort. cristâ brevi, rectâ, pallide fuscâ, ad apicem fulvâ; fronte fulvâ; gula et vittâ per latera capitis ferrugineo-rubris; torque collari anticè angustâ, posticè latâ, nigra, albo guttatâ et castaneo tinctâ; corpore superiore cinereo-nigro et fusco adperso; pectore rufo, singulis plumis guttis sex pallide fulvis, et saturatè fusco circumdatiis, ornatis; his apud latera et abdomen grandioribus et fusco-nigrescente.*

Crest short, straight, light brown tipped with buff; forehead buff; throat and a broad stripe down each side of the head, above and behind the eye, rusty-red; ear-coverts brown; collar surrounding the neck narrow in front and broad, behind black, spotted with white and stained with chestnut; centre of the back, between the shoulders, minutely freckled grey, brown and black; remainder of the back blackish brown, each feather freckled on the margin with grey; scapularies freckled grey and brown, and ornamented on their inner webs with large patches of dark brown; wing-coverts freckled, and with a large spot of dark brown and another of white near the extremity of each feather; primaries light brown fringed with greyish white, and a few indistinctly barred with freckles of the same on their outer webs; tail brown, crossed by narrow freckled bands of whitish and darker brown; across the breast a band of greyish red blotched with a darker tint; breast rufous, each feather with six spots of light buff encircled with dark brown, the spots gradually

increasing in size on the flanks and lower part of the abdomen, and the rufous tint changing into blackish brown; vent buff; under tail-coverts like the abdomen, but the markings less distinct; bill black; feet black.

Total length, 8 inches; bill,  $\frac{1}{2}$ ; wing,  $3\frac{3}{4}$ ; tail,  $2\frac{3}{8}$ ; tarsi,  $1\frac{1}{8}$ .

*Hab.* Santa Fé de Bogota.

Nearly allied to *O. Sonnini*.

For an additional example of that division of the *Ortygidæ* to which the subgeneric term of *Odontophorus* has been given, Mr. Gould proposed, from the marbled appearance of its markings, the specific term of *marmoratus*, with the following characters:—

**ORTYX (ODONTOPHORUS) MARMORATUS.** *Ort. spatio circumoculari nudo, coccineo; plumis auricularibus rufo-castaneis; cristâ elongatâ, laevâ, fuscâ, plumis singulis flavescenti-fusco per medium irroratis; nuchâ nigrescenti-fuscâ, lineis irroratis cinereis angustis, transversim fasciatâ; primorum pogoniis externis arenaceo-fulvo guttatis; corpore inferiore fusco, lineis irregularibus et crebris nigrescentibus cinereis, et arenaceo-fulvis transversim fasciato.*

Naked orbits, scarlet; ear-coverts reddish chestnut; crest lengthened, curved and flowing, dark brown, freckled down the middle of each feather with yellowish brown; back of the neck blackish brown, crossed by numerous narrow freckled bands of grey; lower part of the back yellowish brown, freckled with a darker and a lighter tint; wings dark brown, the coverts and inner webs of the secondaries crossed by numerous broad irregular freckled bands of sandy buff; primaries spotted along their outer webs with light sandy buff; a few of the scapularies with a stripe of white freckled with black down the centre; under surface brown, crossed by numerous irregular narrow bands of blackish brown, grey, and sandy buff; bill and feet black.

Total length, 9 inches; bill,  $\frac{3}{4}$ ; wing,  $5\frac{3}{4}$ ; tail, 2; tarsi,  $1\frac{3}{4}$ .

*Hab.* Santa Fé de Bogota.

Nearly allied to *Odon. Guianensis*.

And for an Albatross nearly allied to, but larger than, *Diomedea chlororhyncha*, and which also differs from that species in the colouring of the culmen, he proposed to designate

**DIOMEDEA CULMINATA.** *Diom. spatio circumoculari nigrescenti-cinereo, gradatim pallescente; facie albâ; vertice corpore subtus et uropygio albis; dorso, alis et caudâ cinerescenti-fuscis; culmine olivaceo-flavo.*

Space surrounding the eye blackish grey, gradually passing into the white of the face; crown of the head, all the under surface and rump white; back of the neck sooty-grey; back, wings and tail dark greyish brown, the latter with white shafts; culmen for its whole length olive-yellow; base of the under surface of the lower mandible fleshy horn-colour, remainder of the bill black; point of the upper mandible horn-colour; feet bluish white.

Total length, 30 inches; bill,  $4\frac{1}{2}$ ; wing, 20; tail, 9; tarsi,  $3\frac{1}{4}$ .  
*Hab.* Southern, Indian, and South Pacific Oceans.

Mr. Fraser having carefully determined the species of birds forming part of an extensive collection of subjects of natural history, brought to England by Mr. Bridges, laid them before the Meeting, and communicated the following notes from that gentleman relating to their habits, ranges, &c.

*Sarcorampus gryphus*, Auct. *Condora* and *Buitre*.

"Found in all the provinces of Chile, and very abundant in the elevated valleys of the Andes. Builds its nest on the shelves of inaccessible precipices, and lays from one to two large white eggs. Iris of the female dark red."

*Cathartes Iota*, Mol. *Ioté*.

"This species is found in abundance along the coast of Chile; also in the interior; devouring dead fish and carrion of all kinds. The head of the adult bird is red when alive. Iris light brown."

*Cathartes atratus*, Sw. *Iotecito* and *Ioté de Mendoza*.

"This bird is found on the eastern side of the Andes near Mendoza, and is occasionally seen in Chile in the province of Colchagua. The caruncles of the head are very large when alive, and black. Iris dark brown."

*Haliaeetus Aquia*, Temm. *Aquila* of the Spanish, *Calquin* of the Indians.

"This bird inhabits the retired woody and mountainous parts of the country. It sometimes soars to a great height. Its principal food is partridges and domestic fowls. The young appear to accompany the old for at least six months, and depend on them till that age for food. I have frequently seen an eagle catch a partridge and carry it to its young that would be waiting on a tree or rock ready to receive it. Iris light brown; legs pale yellow; cere yellow. Builds its nest on the tops of trees, and lays from three to four dirty-white eggs."

*Polyborus Brasiliensis*, Sw. *Traro* and *Taro*.

"Feeds on carrion, worms, frogs and the larva of insects. It is common to see these birds following the ploughman, picking up worms, &c. in the newly broken soil. They build their nests in trees: the nest is composed of sticks and stems of a species of *Rumex*, and on the outside is a kind of platform where the male sits during the setting of the hen. The eggs are dirty white spotted with brown. Iris brown; legs and cere yellow. When pressed by hunger it attacks chickens."

*Phalacrocorax montanus*, D'Orb. *Tuique de la Cordelliera*.

"This is a very rare bird, occurring only in the valleys of the Andes at an elevation of from 5000 to 8000 feet. Found in pairs. Iris dark brown."



*Milvago persoporus*, Meyen. *Tuique*.

"Common in all parts of Chile. Habits the same as the *Traro* (*Pol. Brasiliensis*). Iris brown; legs light brown or grey."

*Buteo erythronotus*, King. *Aguilucho*.

"This is the small eagle of Chile, as its name in Spanish implies. It inhabits the open parts of the country, and is mostly seen perched on the top of a solitary tree enjoying the sun in the afternoon. Base of the bill, cere and legs greenish yellow; iris brown. Food, rats and small birds."

*Astur unicinctus*, Temm., Pl. Col. 313. *Peuco*.

"This species of hawk is found in the retired and woody parts of the country: it appears to seek the shade during the day and hunts its food in the evening. Iris light brown."

*Falco anatum*, Bonap. *Gavilan*.

"The Gavilan is a rare bird in Chile, and the most rapid on the wing of all the Chilean hawks. It is occasionally seen in open parts of the country perched on a rock-stone. Iris brown; legs and nostrils yellow."

*Falco femoralis*, Temm. *Alcon*.

"This is the species of hawk in Chile used for hunting partridges. It is easily domesticated. I have seen them caught in a net for the purpose of hawking, and in fifteen days afterwards follow their master and hunt partridges when sprung by the dogs. Base of the bill and margins of the eyes bright yellow; iris dark brown."

*Tinnunculus Sparverius*. *Sarnicula*.

"This is the smallest of the hawk tribe in Chile. It is said to build its nest in holes of trees. The female is easily distinguished from the male by the bands across the tail-feathers. Iris dark brown."

*Circus cinereus*, Vieill. *Nublina* is the name for the adult male, and *Barril* for the female and young.

"This species is less rapid in its motions than the other hawks, and generally flies nearer the ground. It feeds chiefly on rats and mice. The ruff of feathers round the head gives it the appearance of an owl. Iris bright yellow."

*Elanus dispar*. *Baylarin*.

"This is the rarest of the Chilean hawks. It hovers over its prey, and from that it takes its name, which signifies dancer. Eyes large; iris yellow. Found in pairs. It appears to be migratory, making its appearance during the winter."

*Athene cunicularia*, Mol., Hist. de Chile, pp. 293 and 390. *Piqueu*.

"This species lives in holes in the ground, which it makes to a considerable depth. In the afternoon it comes out of its cave and basks in the sun. It appears to live in communities, as several inhabit the same cave. Iris bright yellow."

*Athene ferox*, Vieill. *Chucho*.

"This is the smallest species of owl found in Chile; it is very destructive to pigeons, killing the young and eating only the brains of

its victims. It is much dreaded by small birds, and the hiding-place of the Chucho is frequently discovered by their cries. It makes its nest in holes of trees. Iris yellow."

*Otus palustris*, Gould. *Nuco*.

"A rare species of owl, found in the province of Colchagua. Iris yellow."

*Strix perlata*, Licht. *Lechusa*.

"Inhabits old houses, and in holes in precipices made by the parrots. Rare in Chile."

*Bubo Virginianus*, Wils. *Túcúrářě*.

"The largest species of owl found in Chile. It inhabits woods and may occasionally be found sleeping during the day. It has derived its name from its note. Iris pale yellow."

*Caprimulgus bifasciatus*, Gould. *Plasta* and *Gallina ciega*.

"This bird is found in bushy places on the east and west side of the Andes. Iris brown. The female is rarer than the male. It is called *Plasta* from its laying flat on the ground: *Gallina ciega* in Spanish signifies Blind-hen."

*Hirundo leucopygia*, Licht. *Golondrina*.

"Called in the Indian language *Pilmayqueu*. It builds its nest, which is composed of grass and feathers, in holes under the tiles of houses. Remains in Chile throughout the year."

*Ceryle torquata*, Gmel. *Martin Pescador*.

"The Indian name of this bird is *Quete Quete*. It inhabits all the southern provinces of Chile, and may be generally seen sitting on a bough over the water waiting for fish: it darts down upon them with astonishing rapidity. Iris dark brown."

*Myiobius parvirostris*, Gould. *Pio*.

"This little flycatcher makes its appearance near Valparaiso in gardens and on the mountains in September. It is called *Pio* from its note. Iris brown."

*Myiobius albiceps*, G. R. Gray. *Binda*.

"This little bird inhabits lonely and shady ravines. It has a singular and mournful note, from whence it has derived its name of *Binda* or Widow-bird. Iris brown."

*Serpophaga parulus*, Gould. *Torito* and *Cachudita*.

"This singular little bird inhabits gardens, and bushy situations on the mountains, in Chile. It takes its name, *Cachudita*, from the feather on the top of the head resembling a horn, *cacho* being a term for horn in Spanish. Feeds on small insects. Iris pale yellow."

*Lichenops perspicillata*, G. R. Gray. *Colegial*.

"This interesting little bird is always found near margins of rivers and marshes: when flying it has a singular appearance, as it then displays the white tips of its wings. Iris and margin of the eye bright yellow."

The *Lichenops erythropterus*, Gould, is either the female or young of the above species.

*Xolmis pyrope*, G. R. Gray. *Thincon* and *Dincon*.

"This bird is migratory: it visits the coast in the winter and spring months, and during the summer retires to the elevated parts of the country. Its food is flies and other insects. Iris bright red."

*Agriornis gutturalis*, Gould. *Mero* and *Zorzal Mero*.

"This bird is found in the central provinces of Chile. Its food is insects. Iris brown."

*Agriornis maritimus*, G. R. Gray. *Mero de la Cordelliera*.

"This bird inhabits the elevated valleys of the Andes on the east and west sides. Iris brown."

*Turdus Falklandicus*, Quoy et Gaim. *Zorzal*.

"Found in all parts of Chile. Iris brown."

*Mimus Thenca*, Mol. *Tenca* and *Trenca*.

"This bird is certainly the most celebrated for its song of all the birds in Chile: it sings during the months of September, October and November. It frequently builds its nest on the tall Catus\*. The eggs so much resemble the eggs of the blackbird of Europe that it would be difficult to distinguish them; nor is the nest unlike. It feeds on flies like the *Muscicapa*. Iris yellowish green."

*Opetiorhynchus nigrofumosus*, G. R. Gray. *Molinero*.

"Inhabits the sea-shore in rocky places, margins of rivers, brooks and ditches. It has a most agreeable note or warble, and flaps its wings whilst singing. Iris brown."

*Opetiorhynchus vulgaris*, G. R. Gray. *Churete*.

"Habits and manners the same as *O. nigrofumosus*."

*Geositta (Furnarius) canicularia*, G. R. Gray. *Caminante*.

"Found on the plains in the intermediate provinces of Chile."

*Uppucerthia dumetoria*, Is. Geoff.

"Inhabits the elevated valleys of the Andes. Iris brown."

*Pteroptochos megapodius*, Vig. *Turco*.

"The Turco is found in the ravines or quebradas near Valparaiso."

*Pteroptochos albicollis*, Kittl. *Tapaculo*.

"This bird is found in all the central provinces of Chile, especially where the *Octodon Cumingii* abounds: when pursued it takes shelter in holes made by the *Octodon*, and appears to live in harmony with that little animal. Its food is no doubt insects, worms, &c., which it obtains with its strong claws by scratching under trees and bushes. Iris brown."

*Scytalopus Magellanicus*, G. R. Gray. *Chircan negro*.

"Inhabits hedges in various parts of Chile."

*Troglodytes Magellanicus*, Gould. *Chircan*.

"This little wren builds its nest with twigs of *Trevoa trinervis*, and lines the inside with feathers: the nest is found in holes of trees and walls. It sings beautifully during the summer. Eggs white

\* So in manuscript.

with reddish-brown spots. Inhabits gardens and hedges near Valparaiso."

*Synallaxis rufogularis*, Gould.

"Found near marshes amongst large aquatic plants."

*Synallaxis pumicola*, Kittl. *Bolaria*.

"This bird is somewhat rare, is fond of bushy situations on the mountains, and builds a cylindrical nest with a hole on the top, composed of twigs of *Trevoa trinervis*; the inside is lined with the down of a species of *Gnaphalium*: it lays from four to six eggs. Iris brown."

*Synallaxis ægithaloides*, Kittl. *Colilarga*.

"Inhabits woody and bushy places, seeking insects in the trunks of trees and amongst bushes."

*Synallaxis spinicauda*, King.

"Inhabits woody situations in the interior of the country."

*Oxyurus dorso-maculatus*, D'Orb.

"Found near marshes amongst large aquatic plants. A very rare bird."

*Dendrodrampus leucosternon*, Gould. *Carpentero Pardo*.

"Inhabits woods in the province of Colchagua near the Andes. Rare."

*Muscisaxicola mentalis*, D'Orb.

"This little bird migrates to the coast in flocks in the months of June, July and August. Iris brown."

*Muscisaxicola rufivertex*, D'Orb.

"Inhabits elevated mountains of the Andes, near the snow."

*Muscisaxicola nigra*, Less. *Animita*.

"Inhabits margins of rivers in sandy places. Found in pairs the whole year."

*Anthus correndera*, Vieill.

"This interesting little bird inhabits moist plains and margins of marshes: when it flies it expands its tail and shows the two exterior white feathers: it is remarkably tame, and hides itself amongst high grass. Iris brown."

*Cyanotis omanicolor*, Swains. *Pajaro de Siete colores*.

*Crithagra? brevirostris*, Gould. *Chirique*.

"The Chirique is seen in the interior and on the coast of Chile in flocks of several thousands together. It builds its nest among high grass on the ground. Eggs dirty white with brown spots."

*Chrysometris campestris*, Gould. *Zilguero*.

"This little bird is common about Valparaiso in the months of September and October, on the mountains. It is caught with bird-lime and in trap-cages, and sold in the market. It is kept in cages for its song, which is almost as agreeable as that of the canary. Iris brown."

*Chrysometris Magellanicus*, Bonap. *Zuilguero de la Cordelliera*.

"This little bird confines itself to the valleys of the Andes on the east and west side. Iris brown."

*Zonotrichia mutatoria*, G. R. Gray. *Chincol*.

"Found in all parts of Chile, also in valleys of the east side of the Andes: builds its nest on bushes. Eggs white with brown spots."

*Fringilla alaudina*, Kittl. *Pichiquina*.

"This little bird makes its appearance in the summer months: inhabits corn-fields: builds its nest on the ground, and lays from four to five whitish eggs with brown spots. Iris dark brown."

*Fringilla fruticeti*, Kittl. *Jalé*.

"Inhabits hedges and bushy situations. Iris brown."

*Fringilla Gayi*, Edoy. et Gerv. *Cometocina*.

"The Cometocina visits the coast of Chile during the winter, and in summer it migrates to the valleys of the Andes. It is found both on the east and west sides. The name in Spanish signifies Bacon-eater; but why so called I know not. Iris light brown."

*Fringilla Diuca*, Mol. *Thiua* and *Diuca*.

"The Diuca is common in all parts of Chile: during the summer months it sings before the dawn of day and in the afternoon. It is a splendid sight to see the sun rise over the Andes in the months of October and November, and the pleasure is moreover enhanced by the warbling of a thousand Diucas. It builds its nest in bushes, and lays from four to six dirty-brown-coloured eggs. Iris light brown."

*Emberiza luteocephala*, D'Orb. *Canaria*.

"Inhabits the elevated valleys of the Andes, east and west sides. Iris reddish brown."

*Phytotoma rara*, Mol.

"Called *Rara* by the natives, and is generally found near houses on bushes and hedges. It is a most mischievous bird in gardens, doing considerable damage to young plants by cutting them in two with its serrated beak: it appears to live on the juice of the plants. The note of this bird is singularly harsh, resembling more the croaking of a frog than the note of a bird. Iris bright red."

*Sturnella Loica*, Mol. *Loica*.

"The Loica is found in all parts of Chile. It congregates in winter on the plains, builds its nest on the ground amongst grass, and lays from four to six whitish eggs with brown spots. These birds often prove an annoyance to the sportsman in Chile, from the dogs pointing at them as at partridges. Iris brown."

*Icterus Thilius*, Mol. *Thili* or *Trili*.

"Occurs in marshy situations, and builds its nest amongst reeds, rushes and light grass: eggs white with brown spots. Iris dark brown."

*Agelaius curaceus*, Mol. *Tordo*.

"This bird is found in all the intermediate provinces of Chile. It congregates in the winter like the Loica and Thili. The Tordo builds

its nest on trees: in size and material the nest resembles that of the thrush of Europe, and is lined with mud inside in the same manner. It lays from four to six eggs of a pale blue colour inclining to white. This bird is easily domesticated, and may be taught to whistle and talk. Iris dark brown."

*Conurus cyanolysios*, Mol. *Psit. Patachinus*, Vig. *Loro* and *Tricague*.

"It makes holes in the precipices near rivers several yards in length, where it deposits its nest and eggs. The eggs are white and almost round, and vary from three to six in number. The young are highly esteemed for the table, and are obtained by attaching a fish-hook to the end of a long pliable stick, which is thrust into the hole and turned round, or drawn backwards and forwards, until such time as the person using it considers his object secured. The natives when employed in capturing these birds incur considerable danger, since they suspend themselves from the tops of high precipices by means of a laso or hide-rope, which is either secured to a tree or stake or held by two or three persons, who move as occasion requires. Iris white."

*Psittacara cheroyeus*, Mol. (*P. leptorhynchus*, Vig.) *Cheroy*.

"Inhabits the province of Colchagua."

*Colaptes Pitiguus*, Mol. *Colaptes Chilensis*, Vig. *Pitigue*.

"The Pitigue is found in all the southern provinces of Chile in woody situations; sometimes it may be seen on the ground seeking worms and grubs. It takes its name from its cry or scream, which may be heard at a great distance. Molina has committed an error by stating that this, unlike the rest of the family to which it belongs, builds its nest in holes in the ground. I have frequently found its nest in holes of trees, but never do I remember having seen or heard of an instance of its building as Molina asserts. The flesh is eaten. Iris greenish yellow. Eggs white."

*Picus lignarius*, Mol. *Picus Kingii*, G. R. Gray. *Carpentero*.

"Inhabits woods and hedges."

*Trochilus gigas*, Vieill. *Picaflor grande*.

"The *Troch. gigas* is found in all the intermediate provinces of Chile: it is seen about Valparaiso during the spring and summer months, feeding on the flowers of *Pourretia coarctata* and *Lobelia polyphylla* in preference to others. It generally builds its nest near a little rivulet, frequently on a solitary twig or branch over the water; the nest is beautifully constructed, and is composed of moss and the down of a species of *Gnaphalium*. Eggs white; iris dark brown. Catches flies."

*Trochilus Millerii*, Loddiges. *Picaflor de la Cordelliera*.

"This beautiful and rare species of humming-bird is only found in the elevated valleys of the Andes, residing amongst storms of hail, rain and thunder, and in places where the naturalist would least expect to find a species of *Trochilus*. It subsists more upon small flies than upon the nectar of flowers. On examination of the crops I found them filled with flies, which they take before sun-down along

the margins of the mountain rivulets. The specimens in the present collection were taken at Los ojos de Agua, province of Aconcagua, at an elevation of from 6000 to 8000 feet, and I saw them at least 1000 feet above that place. Iris brown."

*Trochilus galeritus*, Mol. (*T. Kingii*, Vig., *T. sephanoides*, Less.) *Picaflo*.

"Found about Valparaiso in abundance in the months of August, September and October. Feeds on the *Loranthus tetrandrus*, a parasitic plant growing on the olive. It is taken by the boys with bird-lime, made from the berries of the above-mentioned plant. This species of humming-bird is seen as far south as the island of Chiloe, in lat. 42° south. The females are destitute of the flame-colour on the head, and appear to be less numerous than the males."

*Columba Fitzroyi*, King. *Torcasa* and *Torquasa*.

"The *Torcasa* is found in all the southern provinces of Chile. Near Santiago it assembles in the winter in immense flocks, feeding on young grass and *Alfalfa*. In summer it migrates to the forests of the southern provinces to rear its young, and then feeds on the berries of the laurel. Iris reddish brown."

*Columba Boliviana*, D'Orb. *Tortola Cordellierana*, i. e. Dove of the Andes.

"This dove inhabits the Andes, but in winter it visits the coast for a short time. When put to flight it makes a whistling noise with its wings. Generally seen in small flocks."

*Zenaida aurita*, Temm. *Tortola*.

"This is the most common of the *Columbidae* found in Chile. It assembles in winter in large flocks, and is killed and brought to the markets of Santiago and Valparaiso in large quantities. Iris dark brown."

*Columbina strepitans*, Spix. *Tortolita cyana*.

"This pretty little species of dove is found in the valley of Aconcagua in Chile, and more abundantly on the eastern side of the Andes near Mendoza. Iris greenish white."

*Nocthura perdicaria*, G. R. Gray. *Perdiz*.

"This bird is dispersed over all the Republic of Chile; it is found on the bushy sides of the mountains and in corn-fields. They are either solitary or in pairs, but never congregate: their eggs are of a beautiful dark purple colour, and from ten to fifteen in number. When sprung they utter a shrill whistle, and their flight is very rapid for a short distance. The male scarcely differs in plumage from the female. Iris brown."

*Tinocorus D'Orbignianus*.<sup>\*</sup> *Perdiz de la Cordelliera*.

"Inhabits elevated valleys and mountains of the Andes, both on the east and west sides. The male shows a strong attachment for its mate, and calls her immediately when separated. Found in pairs. Iris brown."

*Tinocchorus Eschscholtzii*. *Perdisita* and *Perdigon*.

"This interesting little bird is found on plains in Chile. When it rises from the ground it takes a rapid and circular flight, often returning to the same spot from whence it rose. In winter they assemble in flocks. Iris brown."

*Eudromia elegans*, D'Orb. *Martinella*.

"Found in pairs on the Pampas near Mendoza."

*Hæmatopus niger*, Temm. *Tira Tira*.

"Found along rocky shores in small flocks: it utters a loud shrill whistle when put to flight. Feeds on *Buccinum concholepas* and the various species of *Patella*. Legs white; iris yellow."

*Hæmatopus palliatus*, Temm. *Pilpileu*.

"Inhabits sandy shores of Chile north of Valparaiso. It feeds on marine insects and assembles in small flocks. Iris yellow; legs white."

*Ardea major* ? Mol. (*Ardea Cocoi* ? Linn.) *Cuca*.

"This fine species of *Ardea* is probably the *A. major*, Mol.; it is very rare, and is only seen occasionally along the banks of rivers in the southern provinces of Chile."

*Ardea Thula*, Mol. *Garsa cirigonia* and *Garsa Chica*.

"Iris pale yellow; fore part of the legs black; hinder part yellowish green. Food small fish, frogs, and the larvæ of *Libellula congregates* in the spring. Builds its nest on trees near lakes, ponds and marshes."

*Herodias galatæa*, Mol. (*Herodias leuce*.) *Garsa grande*.

"Inhabits lakes, marshes and rivers. Iris pale yellow; bill yellow; legs black."

*Ciconia Pillus*, Mol. (*Ciconia Maguari*.) *Pillo* and *Pilla*; pronounced *Peel-yu* and *Pe-yu*.

"This noble bird is often seen in the marshes of the province of Colchagua, and feeds on a species of lobster, called by the natives *Cangrejo*, which is abundant in the marshes and moist meadows. The habitat of the *Cangrejo* may be known by the extraordinary cylinders which it makes with the mud taken from its caves; sometimes they are elevated a foot above the surface of the soil, looking like so many little columns. The *Pillu* whilst stalking amongst them catches the *Cangrejo* on the top depositing its load brought from the bottom of the cave. I once took from the crop of those birds three entire mice, no doubt caught by them amongst the grass in the marshes. Iris pale yellow."

*Nycticorax cyanocephalus*, Mol. (*Nyc. Americanus*, Bonap.) *Guedavo*, *Huedavo*.

"This appears to be the *Ardes cyanocephala*, Mol., p. 260. It may almost be considered a nocturnal bird; it flies and seeks its food in the evening; during the day it is generally seen sleeping on trees or bushes whose branches extend over the water. Iris large, pale orange-colour; legs yellowish green; eggs pale blue. Flesh said to



be excellent eating. This bird varies much in its plumage according to age."

*Phanicopterus Chilensis*, Mol. (*Phæn. ignicapillus*, Is. Geoff.) *Flémenco* and *Cheuque*.

"Inhabits shallows in the lakes and rivers, especially in the southern provinces of Chile. Eye small; iris pale yellow; base of the bill rose-colour; point of the bill to the curvature black; legs sea-green, inclining to grey; feet and heel-joint deep rose or pink colour. It is a magnificent sight to see five hundred of these beautiful birds in a flock, wading in the shallows of the lakes, and no less so when they rise on the wing; the contrast of the black feathers beneath the wings and the lovely scarlet and rose colours producing a very pleasing effect. I have never been able to ascertain where these birds build their nest, but it is probably in the remote and elevated valleys of the Andes in marshy places, together with the numerous species of the *Anatidæ*."

*Platalea ajaja*, Linn. *Cuchareta*, i. e. Spoonbill.

"A rare bird in Chile; it is found in small flocks of five or six along the margins of rivers south of Valparaiso, and is a shy bird."

*Harpiprion Cayanensis* (*Ibis (Falcinellus) Ordi*, Bonap.). *Cuervo* and *Gallereta*.

"The *Cuervo* inhabits marshy places and occurs in immense flocks. When on the wing it always flies in some geometrical figure. Food aquatic insects. Iris crimson."

*Theristicus melanops*, Wagl. *Banduria*.

"The *Banduria* is not uncommon in the interior of Chile. Frequently seen in marshy places in small flocks; builds its nest on trees near water. It is easily domesticated. The flesh is eaten by the natives. Iris pale red."

*Numenius Hudsonicus*, Lath. *Perdiz de la Mar*.

"Inhabits sandy bays along the shores of Chile. Feeds on marine insects."

*Himantopus nigricollis*, Vieill. *Perrito*.

"Inhabits the margins of lakes and rivers. Legs red; iris dark brown."

*Philomachus Chilensis*, Mol. (*Vanellus Cayanus*, Auct.) *Queltregue* and *Queltgue*.

"A very common bird on the plains near the Andes; it feeds on locusts during the summer. The eggs of this bird, in size and colour, resemble those of the lapwing of England, so much so that it would be difficult to distinguish them, and are also excellent eating. Iris pale purple."

*Oreophilus totanirostris*, Jard. & Selb.

"This is a very rare bird, probably a native of the Andes. It makes its appearance on the plains in small flocks in the winter. Iris brown. Rare."

*Streptilas Interpres*, Ill.

"Inhabits sandy shores and mouths of rivers. Iris brown."

*Charadrius Virginianus*, Wils.

"Inhabits sandy shores and mouths of rivers. Iris brown."

*Squatarola Urvillii* (*Squatarola cincta*, Jard.; *Charadrius rubecola*, King).

"Inhabits sandy shores and mouths of rivers. Iris brown."

*Hiaticula bifasciata*.

"Inhabits the shores and margins of lakes in Chile."

*Phalaropus Wilsonii*, Sab.

"Inhabits the lake of Quintero. Rare."

*Limosa Hudsonicus*, Sw. *Avecasina de la Mar*, i. e. Sea-Snipe.

"Inhabits the mouths of rivers near the sea. Rare."

*Scolopax Paraguaia*, Vieill. *Avecasina* and *Porrotero*.

"Found in large flocks in the marshes during winter. Iris brown."

*Rhynchea semicollaris*, G. R. Gray. *Avecasina pintada*, i. e. Painted Snipe.

"Inhabits marshes. Bill and legs pale green; iris brown."

*Rallus sanguinolentus*, Sw. *Piden*.

"Iris bright red; bill blue at the base and light green at the tip. Inhabits marshes and margins of rivers. The flesh is highly esteemed; by the Chilenos considered equal to that of the partridge."

*Gallinula crassirostris*, J. E. Gray. *Taguita*.

"The Taguita is found in marshes, rivers and lakes. Iris red; legs brown; bill pale green. Eggs brown or dirty white with reddish spots."

*Fulica galeata*, G. R. Gray.

"Found abundantly in the lakes of Quintero and Santa Domingo. Legs reddish brown."

*Anser melanopterus*, Eyton. *Pinguen*.

"Found during the winter, in pairs, on plains near the Andes, in the province of Colchagua."

*Chlapgha Magellanica*, Eyton. *Canquena*.

"Found in the winter months on the plains."

*Cygnus nigricollis*. *Cisne*.

"This noble bird is found in all the lakes near the coast of Chile. Iris brown. In pairs."

*Rhynchaspis maculatus*. *Pato Abaston*.

"Found in lakes and rivers near the sea."

*Querquedula creccoides*, Eyton. *Pata Jergon Chico*.

"Inhabits rivers and lakes. Common. Iris brown."

*Querquedula caerulata*, Eyton (*Anas Rafflesii*, Vig.). *Pato colorada*, or Red Duck.

"This beautiful species of duck is found in the lakes and rivers in small flocks. Iris pale red."

*Mareca Chilensis*, Eyton. *Pato real*, or Royal Duck.

"Inhabits rivers and lakes. Found in pairs."

*Anas chalcoptera*, Kittl. (*Anas specularis*, King.) *Pato del Estero*.

"This is a rare species of duck: it inhabits the rivers and lakes in the province of Colchagua where wood abounds. It does not congregate like the other species, but is mostly seen in pairs. Iris brown; web between the toes black."

*Anas Bahamensis*? Linn. *Pato Jergon grande*.

"Inhabits rivers and lakes. Common. Iris brown."

*Erismatura ferruginea*, Eyton. *Pato Pimpillo*.

"This is a very difficult bird to obtain, being very shy and diving when you approach within gun-shot of it. Found in the lake of Quintero."

*Podiceps Kalipareus*, Quoy et Gaim. *Gualita de la Mar*.

"This species confines itself to the sea, and assembles in large flocks in the months of September and October. Found in the bay of Valparaiso and along the coast. Iris red."

*Podiceps Rollandii*, Quoy et Gaim. *Pollolo*.

"Inhabits rivers and freshwater lakes near the coast. Iris red."

*Podiceps Chilensis*, Garnot. *Guala* and *Gualon*.

"This fine species of grebe inhabits the sea and freshwater lakes near the coast of Chile. Iris light brown."

*Puffinus cinereus*, Steph.

"Rocky islets near the bay of Quintero."

*Pelecanoides Garnotii*, G. R. Gray. *Palo yunco*.

"Inhabits the bay of Quintero. Rare."

*Procellaria glacialoides*, Smith.

"Found in the bay of Valparaiso."

*Daption Capensis*, Steph. *Tablero*.

"Found off the coast of Chile, from thirty to forty miles distant from land. Iris dark brown."

*Merganetta armata*, Gould. *Pato de la Cordelliera*.

*Larus dominicans*? Licht. *Quilla*.

"Inhabits the shores of Chile; in sandy shallows near the mouths of rivers. Iris brown."

*Xema (Chroicocephalus) cirrocephalum*, G. R. Gray. *Caguil*.

"Found with *L. dominicans*?"

*Rhynchops nigra*, Linn. *Tijereta*, or Scissor-bird.

"This species of *Rhynchops* inhabits the coast of Chile; its favourite abode is the warm sandy shallows in the lakes and mouths of rivers. It assembles in large flocks in the spring. Iris brown; legs red."

*Phalacrocorax Gaimardii* (*Phalacrocorax cirriger*, King). *Pato Lila*.

"Inhabits the bay of Valparaiso. Iris dark green; legs red."

*Phalacrocorax Brasiliensis*? Spix. *Yeco* and *Pato del Diablo*, or Devil Duck.

"This bird builds its nest on the summits of the loftiest trees, in flocks of many thousands in the bay of Valdivia, near a place called Los Guauros, south of the island of Mansera. It is impossible to remain long in the place where they build, owing to the offensive smell occasioned by their dung, together with the putrid fish which falls from the trees brought for their young. They obtain their food by diving near the rocks along the shore, and are capable of remaining long under water. Iris sea-green."

*Sula* ——— ? *Piguero*.

"The Piguero inhabits the coast of Chile from the island of Chiloe to Copiapo. It is amusing to watch the motions of this bird when flying over the surface of the sea. The moment it perceives a fish, it folds its wings and falls with the rapidity of lightning into the water, diving no doubt to a considerable depth, and often rises with the fish in its mouth. The base of the bill, gullet and legs are a beautiful light purple. Iris light brown."

The following species are found in the vicinity of the city of Mendoza, and are not found on the western side of the Andes :—

*Progne purpurea*, Boie. *Golondrina*.

"This beautiful bird makes its nest in holes along the steep banks of the rivers of Mendoza; also in precipices near the thermal springs at Villa Vicencia. Iris dark brown."

*Muscivora Tyrannus*, Gray. *Tijerata*.

"This singular bird is very pugnacious when setting; when on the wing it extends its tail, which gives it a very singular appearance. It takes its name from its tail resembling a pair of scissors. Inhabits fields and vineyards near Mendoza. Iris dark brown."

*Lichenops (Fluvicola cyanirostris)*, D'Orb. *Virey*.

"This curious little bird receives its name from its note, which it makes on the wing. It perches on the top of a bush, and on a sudden ascends for two yards in the air, and whilst so doing calls out 'Vi-rey,' returning to the same twig from whence it rose. It feeds on flies and insects, and inhabits the valleys of the Andes near Villa Vicencia. Bill blue; legs black; iris dark brown."

*Turdus fuscater*, D'Orb. *Zorzal*.

"Inhabits the vicinity of Mendoza. Iris brown. Sings equal to the blackbird of England."

*Mimus tricaudatus*, D'Orb. *Calandria*.

"This bird has a soft and melodious note; it sings when the sun is nearly lost in the horizon, which perhaps may give it a greater charm. Iris brown."

There is in the collection another species from this locality (Mendoza) called *Trenca*, the technical name of which has not yet been made out.

*Rhynomya lanceolata*, D'Orb. *Turco*.

"Found in bushy places on the Pampas near the river Tunuyan. Iris brown."

*Molothrus niger*, Gould. *Tordo*.

"Found in small flocks in fields near Mendoza. Iris dark brown."

*Diplopterus guira*, Gray. *Urraca*, or Magpie.

"This bird is noisy and restless in its habits; it is found in gardens, vineyards, &c. near Mendoza. Iris pale yellow."

Mr. Fraser observed that an entire series of the above Chilian Birds is contained in the museum of the Earl of Derby.

August 8, 1843.

Prof. Owen in the Chair.

A letter from the Society's Corresponding Member, H. J. Ross, Esq., was read. This letter is dated Malta, July 3, 1843, and announces the receipt of various packages forwarded to Mr. Ross by the Society. This gentleman offers his services in collecting for the Society at Malta, and gives an account of a species of Petrel found in that island, which he thinks is possibly new to science. He observes, moreover, that in his former letters he had omitted to state that the Common Nuthatch (*Sitta Europæa*) is common at Kaipariah.

Mr. Fraser stated that he had received the following observations from Mr. George Loddiges, relating to some species of Humming Birds described in the Society's Proceedings:—

*Ornismya vestita*, Revue Zoologique, 1838, p. 314; 1839, p. 18; 1840, p. 8, is your *Trochilus uropygialis*, Proc. Zool. Soc. 1840, p. 15.

*O. heteropogon*, Revue Zool. 1839, p. 354; Mag. de Zool., 1840, pl. 12, Oiseaux, is your *T. coruscus*.

*O. microrhyncha*, Boissenneau, Revue Zool. 1839, p. 354, Dec.; Mag. de Zool. 1840, pl. 16, Oiseaux, is your *T. brachyrhynchus*.

*O. ensifera*, Revue Zool. 1839, p. 354, Dec.; Mag. de Zool. 1840, pl. 15, Oiseaux, is your *T. Derbianus*.

*O. Bonapartæ*, Revue Zool. 1840, p. 6, is my *T. aurogaster*. The female only is described.

*O. Temminckii*, Revue Zool. 1839, p. 354, Dec.; Mag. de Zool. 1840, pl. 14, Oiseaux, is my *T. cyanopterus*.

*O. Guerinii*, Boissenneau, Revue Zool. 1840, p. 7, Jan., is your *T. parvirostris*. The female only is in both described.

*O. La Fresnayi*, Revue Zool. 1840, p. 8, Jan., is your *T. flavicaudatus*.

*O. Allardi*, Bourcier, Revue Zool. 1839, p. 294, Oct.; *O. Allardi*, Bourc., Anal. des Sci. Physiques de Lyon, iii. p. 226; *O. Paulinæ*, Boissenneau, Revue Zool. 1839, p. 355, Dec.; Mag. de Zool., pl. 13, 1840, D'Orbigny's *smaragdinocollis*, is my *T. Tyrianthinus*.

Mr. Fraser read a portion of a letter from the Earl of Derby, President, relating to the hatching and rearing of Fire-back Pheasants in his Lordship's menagerie.

A species of *Cercopithecus* recently added to the Society's menagerie was exhibited. Of this species, the Secretary observed, he had seen several specimens, and that in the Leyden Museum it is labelled as the *Cercopithecus lunulatus* of Kuhl.

August 22nd, September 12th and 26th, and October 10th,  
no meetings were held.

No. CXXVII.—PROCEEDINGS OF THE ZOOLOGICAL SOCIETY.

October 24, 1843.

William Yarrell, Esq., Vice-President, in the Chair.

A letter from the Society's Corresponding Member, J. B. Harvey, Esq., was read. In this letter, which is dated Port Lincoln, February 14, 1843, Mr. Harvey announces that he had forwarded for the Society's Museum several jars, containing numerous zoological subjects preserved in spirit. The specimens referred to were laid before the Meeting, and were contained in seventeen bottles; among them were many invertebrate animals of considerable interest and some specimens of marsupial mammals in a foetal condition.

The Chairman observed, that it was with the greatest regret he had to announce the recent death of Mr. Harvey, a gentleman who had for many years past been one of the Society's most active and zealous Corresponding Members,—one to whom the Society was greatly indebted for very numerous valuable presents, and for several interesting communications.

A stuffed specimen of the Cassowary, presented by Her Majesty the Queen, and a specimen of the Great Northern Diver, presented by J. B. Robinson, Esq., were exhibited. On the table was also a specimen of the Common Chameleon, presented by Dr. J. B. Thompson, and in a note which accompanied it that gentleman states that the specimen had lived for two months in this country, but at the end of that time died in a spasmodic fit, apparently occasioned by the sting of a wasp, which had been observed flying about it. On the afternoon of the day that the chameleon was supposed to have been stung, it became very restless, and changed its hue oftener than usual; it continued in this state for two days and died on the third.

The following papers were read:—

"Notes of the Dissection of a Female Orang-utan (*Simia Satyrus*, Linn.)," by Prof. Owen.

"The female Orang-utan which died October 11th, 1843, was examined by me on the following day. Its weight was 41 lbs.; its age probably between five and six years. The living animal, when first received at the Gardens, January 4th, 1839, weighed 33 lbs. 8 oz. The acquisition of the permanent series of teeth had been in progress nearly a year. Of this series the first true molar tooth on each side of both upper and lower jaws was first acquired; then the two middle lower incisors; next the two large middle upper incisors cut the gum. The two lateral upper incisors and the left lateral lower incisor were soon after displaced, but their successors had not made their appearance through the gum at the time of the death of the animal. At this period, therefore, the following deciduous teeth

Nos. CXXVIII. & CXXIX.—PROCEEDINGS OF THE ZOOL. SOC.

were retained in the jaw: the right lateral lower incisor, the four canines, and the eight molars.

"The permanent teeth (*bicuspides*) destined to succeed these had their crowns about half formed. Those of the large permanent canines were in the state of hollow cones, supported, like the foregoing, by large and highly vascular matrices, in the course of conversion into the dental substance. The crowns and fangs of the lateral permanent incisors were almost completed. There was no trace of the matrix of the last true molar tooth in the lower jaw.

"The membranes of the brain were unusually injected, and there was much serum between the arachnoid and pia mater. An unusual quantity of serum had likewise been effused into the cavities of the thorax, pericardium and abdomen.

"The principal and lethal morbid changes were found in the chest: the right lung adhered by nearly the whole of its superficies to the surrounding parietes. Its substance was disorganized throughout by numerous tubercles, some of which had begun to soften in the centre. The left lung had been the seat of more recent and active inflammation; its cellular tissue was gorged with bloody serum, and its lower part hepatized. A small cyst, with firm parietes and clear fluid contents, adhered to its surface. The heart had an oval patch, two-thirds of an inch broad, of opaque lymph upon its surface, as in a former Orang: a cyst like that on the left lung adhered to its surface. The mucous membrane of the trachea and bronchi was of a rose-tint, and the tubes loaded with frothy opaque mucus.

"The right lobe of the liver was enlarged and congested; there was a slight adhesion of the epiploon to the spleen, which organ presented a slight anomaly sometimes observed in Man, viz. a small separate supplemental spleen, about half an inch in diameter, attached to the epiploon, just below the spleen proper. With the exception of a slight increase of vascularity at one or two parts, the whole alimentary tract was in a sound state.

"The laryngeal sacs were expanded as far as the clavicles and shoulder-joint, but did not extend below the clavicles.

"The ovaria were of a narrow elongated form, with a slightly tuberculated surface. I obtained ova from several of the graafian vesicles, and one of these contained two ova: they closely resemble those of the human subject, have a thick transparent vitelline tunic, containing the minutely granular contents and germinal vesicle: diameter  $\frac{1}{80}$ th of an inch."

Prof. Owen exhibited one of these ova, and concluded by observations on the brain of the Oran-utan. Its weight was 11 oz. 2 dra. 12 grs. avoird., including the injected *pia mater*.

"Descriptions of new species of *Scalaria* and *Murex*, from the collection of Sir Edward Belcher, C.B.," by Mr. Hinds.

*SCALARIA GLABRATA*. *Scal. testâ elongatâ, politâ; anfractibus decem, rotundatis, fortè disjunctis; costis membranaceis, vicinis suprà et infrà connatis, propè suturam dilatatis; anfractu ultimo decem-costato; aperturâ ovali; umbilico peristremate tecto*. Axis 8 lin.



*Hab.* Amboina; Straits of Macassar; Straits of Malacca. On a muddy floor, in from ten to seventeen fathoms.

The specimens were all obtained without the animal, but the mottled appearance which they present seems to indicate, that when recent they were most probably of a light brown colour.

*SCALARIA DIANÆ.* *Scal. testâ ovatâ, acuminatâ, politâ; anfractibus septenis connatis, costis valdè alaeformibus ornatis; anfractu ultimo hexacostato, ad basin obtusè carinato; aperturâ rotundâ, infernè subtruncatâ; peritremate extûs alato; umbilico nullo.* Axis 5 lin.

*Hab.* Gulf of Nicoya; from thirty-six fathoms, among mud.

*SCALARIA VESTALIS.* *Scal. testâ ovato-elongatâ, pallidâ; anfractibus nonis rotundatis, connatis; costis numerosis, tenuibus, sparsim varicosis, lineis transversis eleganter cancellatis; aperturâ ovali; umbilicatâ.* Axis  $4\frac{1}{2}$  lin.

*Hab.* New Guinea; from seven fathoms, among mud.

An elegant cancellated species, with numerous fine ribs, which, when becoming varicose, are slightly spined above. The number of ribs on the last whorl appears little liable to fluctuation, and they become a very useful and valuable character in the discrimination of the species. In *S. vestalis* their number is twenty-two.

*SCALARIA SUTURALIS.* *Scal. testâ elongatâ, pallidè fuscâ; anfractibus decenis, connatis; costis numerosis, parvis, approximatis, lineis transversis decussatis, subdistanter varicosis; suturâ et anfractu ultimo ad basin carinato; aperturâ subrotundâ; umbilico nullo.* Axis 8 lin.

*Hab.* Straits of Malacca; from seventeen fathoms, among mud.

An elongated shell; also somewhat cancellated by lines traversing the numerous small ribs. At intervals of something less than the volution of each whorl a thick rounded varix is formed: a keeled line also occupies the most inferior portion of the whorl, close to the suture. The specimens had been left by the animal some time previous to being captured, and though they are not in very good condition, there still remains a disposition to a dark brown banding.

*SCALARIA ACICULINA.* *Scal. testâ elongatâ, politâ; anfractibus decenis subdisjunctis; costis rotundatis, supernè angulatis; anfractu ultimo decemcostato; aperturâ ovali; umbilico parvo.* Axis  $3\frac{1}{2}$  lin.

*Hab.* West coast of intertropical America.

*SCALARIA CREBERRIMA.* *Scal. testâ ovato-elongatâ, albidâ; anfractibus septenis, connatis, costis tenuibus creberrimè instructis; aperturâ ovali; umbilico nullo.* Axis 3 lin.

*Hab.* North coast of New Guinea; from seven fathoms, among mud.

The whorls are closely set with ribs, in numbers almost too great to be enumerated.

**SCALARIA PORRECTA.** *Scal. testâ ovato-elongatâ, fuscâ, politâ; anfractibus octonis, connatis, supernè rotundatis; costis acutis, supernè aculeatis; anfractu ultimo septemdecemcostato, pallidè fasciato; aperturâ ovali, ad basin truncato; umbilico nullo.* Axis  $4\frac{1}{2}$  lin.

*Hab.* Straits of Malacca; from seventeen fathoms, among mud.

**SCALARIA VULPINA.** *Scal. testâ elongatâ, fuscâ; anfractibus nonis rotundatis, connatis; costis obtusis, rotundatis, lineis elevatis decussatis; suturâ profundâ; anfractu ultimo novemcostato, ad basin obtusè carinato; aperturâ rotundâ; umbilico nullo.* Axis 3 lin.

*Hab.* Island of Quibo, Veragua, Central America; from thirty fathoms, among mud; the temperature below being  $58^{\circ}$ , and at the surface  $82^{\circ}$ .

A pretty little shell, which, under first impressions, the propriety of placing in *Scalaria* might be called in question, though it possesses the characters assigned to the genus. Still there is a difference of character and appearance, which creates a momentary hesitation. But, together with its deep suture, the basal whorl is provided at its inferior surface with a blunt keel, which is also to be met with in a few other species of *Scalaria*, but I am not aware in any other genus, and which induces me to place it here without the least doubt as to the propriety of its location.

The following new species of *Murex* were collected, with three exceptions, during the voyage of the Sulphur, under the command of Sir Edward Belcher, C.B., and figures of them will shortly be published in the 'Zoology' of the Voyage. These descriptions are by Mr. Hinds.

**MUREX ANTILLARUM.** *Mur. testâ subfusiformi, pallidâ, trivariçosâ; anfractibus septenis rotundatis; varicibus tribus rotundatis, spiniferis, posticè fornicatis; ad angulum anfractuum spind unâ elongatâ, deinde quinque breviusculis; interstitiis tri-, vel rariùs, quadri-fariam noduloso-costatis, lineis transversis fuscis penicillatis; canali elongato, aperto, propè anfractum basalem subflecto, spinis duabus cavis gerente.* Axis 18 lin.

*Hab.* Tortola, West Indies. Mus. Cuming.

This shell is another of those typical forms of *Murex* which have recently become somewhat numerous, and which appear to be confined to the tropical seas. I am strongly disposed to think that it is meant to be represented in fig. 69 of the 'Conchological Illustrations,' which is mentioned as a variety of *M. Motacilla*, though there are still some little points of difference. A fine specimen often permits a conchologist to clear up his doubts as to specific importance, and I have had the assistance of such in drawing up the above description. Indifferent specimens are not uncommon, and Mr. Sowerby, jun. had most probably only such, and was compelled to leave it as a variety of *M. Motacilla*.

**MUREX CENTRIFUGA.** *Mur. testâ gracillimè fusiformi, pallidè cor-*

*ned, passim creberrimè striatâ; varicibus tribus, subalatis, in spinis compressis laciniatis; spind ad angulum anfractuum elongatâ, subrectâ; interstitiis nodo unico; aperturâ elongatâ, ovali; labro intûs levi; canali mediocri, rectiusculo, clauso, ad basin subrecurvo. Axis 16 lin.*

*Hab.* West coast of Veragua; on a sandy floor in fifty-two fathoms. This species has the general character of *M. pinniger* and *M. capensis*, and is very closely allied to the latter.

**MUREX FESTIVUS.** *Mur. testâ fusiformi, crassâ, fulvâ, trivaricosâ; varicibus simplicibus, recurvis, supernè cristatis, subtilissimè creniferis; interstitiis nodulosis, lineis subgeminis transversis fuscis eleganter ornatis; aperturâ ovali; labro intûs sparsim denticulato; canali valdè clauso, ad basin subrecurvo. Axis 13 lin.*

*Hab.* Bay of Madalena, California; dredged from seven fathoms, on a sandy floor.

**MUREX FOVEOLATUS.** *Mur. testâ fusiformi, crassâ, multivaricosâ, transversim creberrimè sulcatâ, laminis minimis longitudinalibus foveolatâ atro-purpureo pallidè bifasciatâ; varicibus septenis simplicibus, posticè rotundatis, anticè margine acutâ; aperturâ ovali, coarctatâ; labro intûs obtusè denticulato; labio interno producto; canali aperto, subrecurvo. Axis 12½ lin.*

*Hab.* Bay of Madalena, California; with the preceding.

**MUREX ANANAS.** *Mur. testâ fusiformi, ventricosâ, crassâ, multivaricosâ; anfractibus septenis supernè subplanulatis, transversim costatis, costis alternatè minoribus; varicibus senis rotundatis spiniferis, spirâ supremâ præcipue maximâ, brevi, rectâ, solidâ, biplicatâ, transversim compressâ, cæteris brevissimis subæqualibus; aperturâ rosed, rotundatâ, seu paulisper elongatè ovali, posticè canaliculatâ; canali mediocri, subobliquo, aperto, margine columellari rugulosâ, dorso bifariam spinoso, serie supremâ superante.*

*Hab.* West coast of Africa. *Mus. Cuming.*

A shell closely resembling *M. rosarium* in its size and proportions, but finds its specific distinction in its greater massiveness, the superior size of its upper series of spines, and the absence of nodules on the interstitial ribs. Both shells have a distinct fasciation of three dark bands, but our species is entirely wanting in that beautiful and elegant covering of striæ which is so conspicuous in the fine specimen of *M. rosarium* in Mr. Cuming's collection.

**MUREX BELCHERI.** *Mur. testâ magnâ, fusiformi, crassâ, ponderosâ, pallidè fuscâ, multivaricosâ; anfractibus quadratis, albo fasciatis; varicibus numerosis, foliaciis simplicibus, supernè elongatis, fornicatis, ætate valdè erosis; aperturâ quadratâ, pallidè carnea; labro intûs levi, infernè dente magno, crasso, obtuso; canali tortuoso, aperto, ad sinistram inclinato; umbilico præcipuè magno. Axis 66 lin.*

*Hab.* San Diego, California. From a bank of mud near the head of the harbour.

**MUREX CALIFORNICUS.** *Mur. testâ fusiformi, fulvâ, trivariçosâ; anfractibus senis, supernè planulatis, transversim costatis, costis rotundatis, subdistantibus, ad lacinias varicum incurrentibus, intervallis costellatis, creniferis; varicibus sex-laciniatis, supremâ maximâ alatâ, deinde gradatim minoribus creniferis; aperturâ ovali, lævi; canali clauso, recurvo, ad basin purpurascente. Axis 18 lin.*

*Hab.* California. *Mus.* Cuming.

**MUREX HAMATUS.** *Mur. testâ rhomboided, pallidè luted, multivariçosâ; anfractibus septenis, inter varices areis quadratis; spirâ subelongatâ, acutâ; varicibus senis alatis, laciniis uncinatis; aperturâ ovali, infernè dente parvo acuto; canali clauso, rectiusculo. Axis 13½ lin.*

*Hab.* Bay of Guayaquil; from a muddy floor, in twenty-one fathoms.

This shell, together with *M. emarginatus*, *M. monoceros* and *M. Nuttali*, belong to a section of the genus which has been called by Conrad *Cerastoma*. But if the marginal tooth of the aperture is to be regarded as sufficient grounds for separation, then I fear we must draw freely on some of the typical species, where its existence seems to have been little heeded. Mr. Swainson assigns it as a character of his subgenus *Muricanthus* or *Centronotus*; but for the above reasons it ceases to possess any importance. In *M. hamatus* the situation of the tooth on the dorsal varices is marked by a small sharp notch.

**MUREX CIRROBUS.** *Mur. testâ fusiformi, ventricosâ, pallidè carnea, formosissimè multivariçosâ; suturâ profundâ, propè nigricante; varicibus nonis sexfariam laciniatis; laciniis fistulosis, albis, respectantibus, gradatim minoribus; interstitiis costis rotundatis lacinias incurrentibus; aperturâ ovali; labro intûs lævi; canali gracili, recurvo, ferè clauso, dorso bifariam laciniato, serie superiore gemind. Axis 9 lin.*

*Hab.* Straits of Macassar. In fifteen fathoms, among sand and fine gravel.

An uncommonly beautiful species, both from the delicacy of its colour, and the rich, varied, and elaborate character of its sculpture.

**MUREX GRAVIDUS.** *Mur. testâ globosè fusiformi, multivariçosâ; anfractibus senis rotundatis, transversim costatis, supernè fusco fasciatis; costulis approximatis, lamellosis; varicibus quinis costulis subdivergentibus transitis, posticè foveolatis; aperturâ ovali, productâ; labro intûs lævi; canali longiusculo, aperto, ad sinistram inclinato. Axis 10 lin.*

*Hab.* Cape Blanco, west coast of Africa. From sixty fathoms.

**MUREX RADICATUS.** *Mur. testâ fusiformi, pallidè lutescente, multivariçosâ; varicibus quinis, laciniatis, anticè abruptis; laciniis compressis, subquadratis, medio lined duplicatis, posticè medio interstitiorum exsiliantibus; aperturâ ovali, productâ; labro intûs lævi; canali ferè clauso, ad basin subrecurvo, Axis 10 lin.*

*Hab.* San Blas, west coast of Mexico. From eleven fathoms, among mud.

In this species the laciniae of the varix take root near the centre of the interspace, whence they proceed directly forwards. They are of a squarish compressed shape, and are partially divided in their middle by an impressed line.

**MUREX PERITUS.** *Mur. testd subrhomboided, albidd, multivaricosd; anfractibus septenis, supernè angulatis et fuscis, ultimo elongato in canalem attenuato, transversim striatis; varicibus senis tenuibus, laciniatis, anticè inter lacinias seriebus duabus eleganter crenatis; laciniis acuminatis, uncinatis, gradatim minoribus; aperturâ ob-ovato; canali aperto, ad basin subrecurvo. Axis 9½ lin.*

*Hab.* Bay of Madalena, California. From seven fathoms, on a sandy floor.

Mr. Bridges on the habits, &c. of some of the smaller species of Chilian Rodents.

“*Mus longicaudatus*, Bennett.—I found this mouse in the valley of Quillota, fourteen leagues distant from Valparaiso, in the vicinity of brooks and rivulets, amongst weeds and long grass, although from its appearance I should imagine it seldom takes the water. In that part of Chile it is not rare, but it cannot be considered a common species. In the province of Colchagua I have found another species approaching *M. longicaudatus* and more abundant, differing slightly in the length of its tail, and in being somewhat less in size. At first sight the two species are liable to be confounded. Probably this is the same species mentioned in p. 40 of the ‘Zool. of the Voyage of the Beagle’ by Mr. Darwin as being so numerous in the province of Concepcion.

“*Mus longipilis*—Waterh., ‘Voy. of the Beagle,’—inhabits the provinces of Aconcagua, Valparaiso and Colchagua. Its favourite haunts are the hedges made of bushes of *Mimosa Cavenia* and *Trevoa trinervis*, also other shrubs used indiscriminately for that purpose. It is necessary to explain that the hedges of the fields of Chile are renewed every year by throwing on each side of them new layers of bushes, and that they are frequently two or three yards across, forming thus a mass of decomposing wood, which gives excellent shelter for the numerous small Rodents inhabiting that country, which is so rich in this interesting group. The *Mus longipilis* is without a native name to distinguish it from the other species found in Chile. All the small species belonging to different families are known and called by the natives by the name of Llaucha, pronounced Yaw-cha, a term in the language of the Auracarian Indians signifying a mouse, and this name is current in the present day in the parts of the country occupied by the descendants of the Spaniards. The general term applied to the large species is ‘Ratones.’ There is a species found near the town of Quillota, fourteen leagues distant from Valparaiso, and probably not yet known to naturalists, called ‘Pericote.’ This animal lives in common in the caves with *Octodon Cumingii*.

“*Myopotamus Coypus*, Auct.,—*Mus Coypus*, Molina,—inhabits the

margins of rivers and lakes in the southern provinces of Chile, abounding more in the lakes than in the rivers, where the *Typha latifolia* and *Scirpus* species are plentiful to give them shelter. During the time of copulation, which takes place in September and October, the Coypo makes a mournful kind of cry, which somewhat resembles that of a young child. I was once riding along the margins of one of the streams which enters the river Teno in the province of Colchagua, and my attention was roused by a most melancholy sound, which I fancied was from a child in the water, and to my surprise I found it arose from a Coypo seated on a dead stump almost on a level with the water. I could not help listening for a few minutes at the singular noise, till on a sudden, when the Coypo saw me, it disappeared under water. The Coypo possesses a strong attachment for its young, and swims with them on its back till they are sufficiently large to follow the old ones in pursuit of their food. The places where the Coypo most abounds in Chile are the borders of the river Maypo near Santiago, the capital of the country, also in the lakes of 'Aculeo' and Quintero. The natives, especially the husbandmen, use the skin of this animal to make tobacco-pouches.

"*Octodon Cumingii*, Bennett,—*Sciurus Degus*, Molina,—*Dendrobis Degus*, Meyen,—is the most common of all the Chile Rodents. It is found in the hedges of the central provinces of Chile, and may be seen during the day, but more generally in the afternoon. In habits it is tame, and at first sight distinguished from all other species from its activity and by its carrying the tail curved upwards like the mountain *Lagotis* or Viscacha. This little animal has a very extended range: I have seen it as far north as lat. 28°, and in south 35°, and it may probably extend further, but I do not remember seeing it in the provinces of Chiloe or Valdivia. In the province Coquimbo, where hedges do not abound, owing to the sterility of the country, it inhabits rocky situations, living amongst the loose stones on the slopes of mountains; and it is frequently found in the caves or burrows of the Chinchilla. The natives employed in killing the 'Chinchillas,' which are not uncommon about Coquimbo and Huasco, before they commence following the burrows, which they do with crow-bars, examine the dung of the animals about the caves, and from their practical knowledge they distinguish at once if the caves are inhabited by the Chinchilla or the Octodon. Nevertheless, as both animals often inhabit the same cave, they frequently after great labour find it only occupied by the Octodon. From observations which my long residence in Chile has given me, I am inclined to believe that the *Octodon Cumingii* does not breed more than twice during the year, viz. in spring and autumn, producing from four to six young at a birth. The favourite food of the Octodon is herbage near the hedges: but in the winter months, when pressed by hunger, it feeds on the tender bark of *Mimosa Cavenia*, also that of *Cestrum Palqui*.

"*Schizodon fuscus*—Waterh. 'Proc. Zool. Soc. for November 1841—is found in the Valle de las Cuevas, on the eastern side of the Andes, about six leagues from the slopes of the volcano of Peteroa, at an elevation of from 5—7000 feet, in S. lat. 35°. Its favourite abode

is near the mountain streams in grassy situations. There are certain places in the valley completely undermined by the workings of this animal; and whilst we were riding over these districts, our horses frequently plunged almost up to their knees in the burrows. Whilst rambling in search of the beautiful alpine plants I could not help feeling surprise at finding animals of this order in such a locality as those elevated valleys, which are covered with snow at least four months during the year. The question is, do they on the approach of snow-storms migrate towards the verge of the Pampas, or make a provision of dried grass and roots for the winter months? I should give my opinion in favour of the latter, judging from their enormous burrows. The *Schizodon fuscus* is nocturnal like *Poephagomys ater*: those I procured were shot in the evening near the entrances of their caves. I have seen them burrowing and throwing the sand out of their caves during the day; but the moment they hear a noise their labours cease and they retire deeper into their caves.

"*Notice of the new animal allied to Octodon.*—This animal is found in the vicinity of the town of Curico, in the province of Colchagua; it inhabits the hedges made of dead bushes, and does not appear to burrow, like many other species. The present species may be known by the singular chirping or whistling noise which it makes. It forms its nest in the decomposing bushes and sometimes on the surface of the ground, of dried grass, and appears to live in small communities of one or two families. This animal appears to be more rare than many other Rodents, as I have never been able to find it in any other locality, except the one above mentioned.

"*Poephagomys ater*, F. Cuvier; *Mus cyanus*, Molina.—The *Poephagomys ater* is undoubtedly the animal alluded to by Molina under the name *Mus cyanus*; his long description of its habits agrees in most respects with the habits of this little animal; but I have never yet heard it called by the natives 'Guanque': it is generally known in Chile by the name of Cururo and Cuyeita; Guanque is the vernacular name of a species of *Dioscorea* on which the 'Cururo' subsists. Molina is perfectly correct in saying that it stores up a considerable quantity of provisions, which consist of the *Dioscorea*, *Conanthera*, *Ornithogalum*, *Brodiaea*, and other bulbs and tubers which abound in the country. The poorer class of inhabitants being aware of its habits, sound the caves or burrows, and rob them of their store, which they eat. The jaws of the Cururo are capable of extraordinary expansion, and by this provision of nature it is enabled to carry bulbs and tubers of a large size to its granary.

"The work of this little animal would surprise a person unacquainted with its habits; I have frequently seen a considerable surface of ground completely undermined by its burrows. It generally selects the slopes of hills and mountains, where bulbs are found, especially in the interior parts of the country: its caves are carried in a horizontal course, at the depth of eight or ten inches, or rather about the depth in which they meet their food.

"This little animal may be considered nocturnal, seldom or ever making its appearance during the day; those which I procured were

obtained by waiting for them in the evening, and shooting them when their head scarcely emerged from their caves.

"Whilst residing in the elevated valleys of the Andes, on the eastern side, I observed on the dry slopes of the mountains the labours of a Rodent (probably a species of *Ctenomys* or *Poephagomys*) different from any I had previously met with; the chief difference consisted in the mouth of the cave never being left open. Its mode of burrowing is similar to *Poephagomys ater*, in being near the surface; but as I was unfortunately unprovided with traps, I could not obtain one.

"*Lagotis pallipes*, Bennett.—This is the mountain 'Viscacha'; the specimen brought home by me, and now in the British Museum, was taken on the east side of the Andes, at an elevation of 4000 to 5000 feet, between Villavicencia and Uspallata. The specimen alluded to I found soon after sunrise near Uspallata, in a rocky valley; I saw four of these animals feeding on the scanty herbage, and at first took them to be young foxes, but my men assured me to the contrary. I gave my dog in charge of one of the men, so that I might approach them; but, unfortunately, before I got within gunshot the dog got loose. It was amusing to see these animals bound over the rugged and rocky side of the mountain, swinging their beautiful brushy tail and endeavouring to regain the caves in the rock.

"There is a mountain 'Viscacha' on the west side of the Andes, but not having seen it, I am unable to say if it be the *Lagotis pallipes* or another species of the same genus. This animal avails itself of caves in the rock or situations extremely rugged, where large stones lie tumbled one on another, leaving spaces between them sufficiently large to admit the body of the *Lagotis*.

"*Notice of a new species of Didelphys*.—In looking over the beautiful plates of the 'Zoology of the Voyage of H.M.S. Beagle,' I find three species of *Didelphys* figured, and I feel pleasure in stating that I am acquainted with another species in Chile, inhabiting the province of Colchagua. It is known to the natives by the name of 'Llaca,' pronounced 'Yacu.' In its appearance it resembles *D. elegans*, but is larger in size and possesses an extraordinary fleshy tail. In 1835, whilst some men were taking down a cottage on an estate near Curico, two of those beautiful little animals were found in the thatch; one was taken alive, and after having it several days in my possession it by some means made its escape. It appears to be rare, although, from its having a native name, it might be imagined to the contrary; I frequently offered a reward to the natives to induce them to obtain another specimen, but never was able to procure one."

"Descriptions of four new species of *Ortyx*," by Mr. Gould.

**ORTYX LEUCOPHRYS.** *Ort. facie et strigd latd superoculari fulvescenti-albis; nuchæ laterumque colli plumis splendide castaneis albo utrinque fimbriatis; illis dorsi superioris castaneis, plumbeo marginatis; pectore cinereo, strigd rubide castaned per plumas singulas excurrente, primariis saturate ferrugineis.*



Face and a broad stripe over the eye buffy white; ear-coverts and crown of the head brown; feathers of the sides and back of the neck rich chestnut, margined on each side with white; feathers of the upper part of the back rich chestnut, margined with slate-grey; breast grey, with a stripe of reddish chestnut in the centre of each feather; back dark greyish brown, very minutely freckled with black; wings brown, freckled with buff and black; primaries deep rust-red; tail dark brown, freckled with buff and black; irides clear brown; feet red; bill black.

Total length,  $13\frac{1}{2}$  inches; bill,  $\frac{5}{8}$ ; wing,  $7\frac{1}{2}$ ; tail, 6; tarsi,  $2\frac{3}{4}$ .

*Hab.* Coban, Central America.

In the collection of the Earl of Derby. Another specimen, in the museum of the Jardin des Plantes, is somewhat larger and brighter in colour than the one here described.

*ORTYX FASCIATUS*, Natt. MS. *O. cinereus, alis corporeque subtùs, fulvo, nigrescenti-fusco, et albo fasciatis.*

Forehead reddish brown; crest deep brownish black, tipped with reddish brown; chin greyish white; ear-coverts brown; sides and back of the head light brown, minutely freckled with darker brown and white; all the upper surface greyish brown, minutely freckled with darker brown and white, the coverts and scapularies passing into black towards the extremity of each feather, and crossed at the tip with a narrow band of buff; tail similarly marked, but browner than the upper surface and crossed by numerous freckled irregular double bars of dark brown and greyish white; primaries brown, with lighter edges; all the under surface brownish black, each feather crossed at the tip with a broad band of pure white, which, becoming gradually wider on the centre of the abdomen, leaves that part white; on the breast the white marks are very faint, and the feathers are tinged with rufous; thighs buff; under tail-coverts light buff, with two blackish brown spots down the centre of each feather; bill black; feet flesh-colour.

Total length,  $8\frac{1}{4}$  inches; bill,  $\frac{5}{8}$ ; wing,  $4\frac{1}{4}$ ; tail, 3; tarsi,  $1\frac{1}{4}$ .

*Hab.* California.

In the collections of the Royal Museum at Brussels and of His Highness the Prince Massena, to whose kindness I am indebted for the loan of the specimen here described.

For this species, perhaps the most interesting of its family, I cannot do better than retain the specific appellation proposed for it in a letter lately received from him by my late much-valued and lamented friend Mr. John Natterer of Vienna, whose talents as a naturalist are too well known to require any eulogy from me.

*ORTYX LEUCOTIS.* *O. facie, cristâ, et plumis auricularibus albis, fusco leviter tinctis, guld saturatè castaned, colli utroque latere strigâ splendide castaned nigro punctatâ, ornato; corpore subtùs castaneo, albo distinctè guttato, præsertim apud pectus atque latera.*

*Adult Male.*—Face, crest and ear-coverts white, slightly tinged with buff; throat dark chestnut; stripe from over the eye down each

side of the neck chestnut, speckled with black; stripe down the back of the neck buff, speckled with black; sides and back of the neck spotted black and white; all the upper surface, wings and tail greyish brown, very minutely freckled with dark brown and greyish white; centre of the back blotched with black; inner webs of the scapularies and secondaries dark brown, margined internally with buff, forming a line in the direction of the body when the wing is closed; all the under surface chestnut, distinctly spotted with white, the spots separated by black; under tail-coverts buff, with a black mark down the centre of each; middle of the abdomen reddish chestnut; bill black; feet flesh-colour.

*Young Male*.—Crest and ear-coverts brown, head and throat striated with rufous and black; spots on the back stronger than in the adult; the colouring of the under surface similar, but much less rich, and the centre of the abdomen deep buff.

*Female*.—Crest and ear-coverts brown; sides of the head and the under surface pale buff, spotted and blotched with brown and black; centre of the abdomen wholly buff; all the upper surface pale brown, crossed by numerous narrow freckled bars of white; tail crossed by six or eight similar bars.

Total length,  $8\frac{1}{4}$  inches; bill,  $\frac{5}{16}$ ; wing,  $4\frac{1}{4}$ ; tail,  $2\frac{1}{2}$ ; tarsi,  $1\frac{1}{4}$ .

*Hab.* Santa Fé de Bogota.

*ORTYX (ODONTOPHORUS) STROPHIUM. O. vertice et plumis auricularibus nigrescenti-fuscus; facie sordide alba nigro punctatâ; mento albo, gula saturatè nigra, lunulâ alba, ornatâ.*

Crown of the head and ear-coverts blackish brown; sides of the face dull white, speckled with black; chin white; throat deep black, crossed by a broad crescent-shaped mark of pure white; all the upper surface dark brown, freckled and marked with sandy buff; each of the scapularies with a large patch of black near the tip of the inner web, and a stripe of buff down the centre; all wing-coverts with a spot of buff at the tip; primaries and spurious wing dark brown; breast and under surface rich reddish chestnut, with a large spot of white in the centre of each feather; vent and under tail-coverts deep brown tinged with buff; bill black; feet blackish brown.

Total length, 9 inches; bill, 1; wing,  $5\frac{1}{2}$ ; tail, 2; tarsi, 2.

*Hab.* The southern countries of Mexico.

This is a most robust species, and distinguished from its congeners by its larger bill, shorter tail, and large and powerful tarsi.

The Meeting was then adjourned to November 28, the Chairman observing that as the Society was about to remove from Pall Mall to Hanover Square, it would be necessary to pass over the Meeting announced on the Society's cards for November the 11th.

November 28, 1843.

William Yarrell, Esq., Vice-President, in the Chair.

A letter from Charles M. Willich, Esq., was read, in which that gentleman calls the attention of the Society to M. Gannal's method of preserving animal substances.

"From the observations made by M. Gannal, and reported to the Académie des Sciences at a recent sitting, it appears that arsenic does not permanently preserve animal substances, although it prevents, for the moment, a putrid fermentation.

"He alludes to his former communication, explaining how the salts of them act on the gelatin and preserve the animal matter from putrid fermentation by the combination of the two substances. The gelatin is thus rendered incapable of putrefaction; but the other evil, viz. the destruction by insects, is not avoided. For the latter object he proposes the following preparation:—

"1 kilogramme of sulphate of alum—1 kilog. =  $2\frac{1}{4}$  lbs. avoird.;

"100 grammes of nux vomica in powder—100 grammes =  $3\frac{1}{2}$  oz. av.;

"And 3 litres of water—3 litres =  $5\frac{1}{4}$  imperial pints.

"The above to be boiled down to  $2\frac{1}{2}$  litres, and then allowed to cool: the clear liquid is to be drawn off and serves for injection. The residue is employed in the following manner. With four table-spoonsful of this residue mix the yolk of one egg; let this paste be prepared as wanted. It is to be used for covering the interior of the skin, and particularly the fleshy parts which may have been left in skinning the animal. The yolk of egg serves to preserve the suppleness of the skin, tanned by the salts of alum.

"In order to preserve the feathers of birds he proposes three modes:—

"1. The employment of nux vomica in powder.

"2. An alcoholic tincture of 100 grammes of nux vomica, macerated in 1 litre of alcohol.

"3. An alcoholic solution of 2 grammes of strychnine in 1 litre of alcohol.

"Whatever mode may have been used for preserving the animal, the ravages of insects may be instantly arrested by covering with a soft brush the whole of the skin, either with the tincture or solution above described, as may be found best adapted.

"If the feathers of birds are of delicate colour, the solution of strychnine should be employed; and for those very delicate birds, where soaking in either of the preparations is not possible, the nux vomica must be used in powder, taking care to insert it well in the napes of feathers. In all cases the inside of the skin may be rubbed with the paste.

No. CXXIX.—PROCEEDINGS OF THE ZOOL. SOC.

"In conclusion he states that from his experience he feels assured—

"That no arsenical preparation can insure the preservation of animal substances;

"That they are destroyed by exposure to the air for a period exceeding three years;

"That those substances enclosed in hermetically sealed cases are destroyed even in one year;

"That the soluble salts of alum are quite effective in arresting putrid fermentation; and

"That the employment of the preparation of nux vomica, as described, perfectly preserves animal substances from the attacks of insects."

The following papers were read:—

"Descriptions of new species of the genus *Narica*, discovered by Hugh Cuming, Esq.," by M. Récluz.

#### Genre *NARICA*, Récluz.

*Nerita* species, Chemnitz; *Sigaretus* species, Lamarck; genre *Vanicoro*, Quoy et Gaimard olim; genre *Narica*, Récluz, in litteras; D'Orbigny (Alcide), Moll. Cuba; genre *Merria*, Gray in Beechey's Voyage.

*Caractères génériques*.—Animal gastéropode, dioïque, marin, globuleux, à peine spiral. Tête portant un muflé assez saillant, munie de deux tentacules longs, renflés au milieu et subulés à l'extrémité, ayant à leur base externe des yeux sessiles et fort petits. Pied petit, parfaitement arrondi, séparé par un sillon profond d'un appendice antérieur ou chaperon sous-buccal, allongé, concave et en manière de trompe; deux folioles membraneuses, assez larges, partent de chaque côté du pied et remontent en pointe vers la tête. Cavité respiratrice grande ainsi que la branchie dont les folioles sont en partie libres.

Coquille semiglobuleuse, externe, souvent transparente et mince, plus ou moins vitrée ou d'un blanc azuré, souvent aussi solide, opaque, blanchâtre et rarement rosée. Tours de spire striés, côtelés ou treillisés. Spire courte et couchée du côté de l'ouverture. Ouverture subarrondie, presque sémilunaire, un peu creusée en arc à la columelle, à bords désunis. Omphalique ouvert, souvent évasé et spiral, sans trace de funicule (*funiculus* cordon ombilical) et prolongé derrière le bord interne (*labium*) en une sorte de canal.

Opérucule petit, mince, papyracé, cartilagineux, sans trace de spire à son sommet et ne laissant même pas apercevoir ses éléments, fixé à la partie postérieure du pied et lui devenant perpendiculaire quand cette portion de l'animal est rentrée. Sa surface est finement rayonnée de stries.

*Observations*.—Ce genre comptait il y a peu de temps quelques espèces anciennement décrites par les auteurs, savoir—1°. *Nerita cancellata*, Chemnitz (*Sigaretus cancellatus*, Lamarck); 2°. *Nerita berosissima*, Montagu (*Narica tuberosissima*, nobis); 3°. *Narita ibrissima*, Brown (*Narica glaberrima*, nob.). Depuis quelques

auteurs en ont fait connaître d'autres, telles sont 4°. *Velutina cancellata*, Q. et G. (*Narica Quoyi*, nobis); 5°. *Natica margaritacea*, Potier (*Narica margaritacea*, nobis); 6°. *Velutina sigaretiformis*, Potier (*Narica sigaretiformis*, nobis). À ces espèces nous ajouterons deux autres découvertes par M. Alc. D'Orbigny, décrites et figurées par lui dans ses 'Mollusques de Cuba,' savoir—7°. *Narica lamellosa*; 8°. *Narica sulcata* (la *Narica striata*, D'Orb., est la même espèce que la *Natica margaritacea*, Potier, l. c.); une, 9°, par M. Le Guillou *Sigaretus helicoides*; huit autres dues aux recherches habiles de Mr. H. Cuming qui a enrichi la conchyliologie de coquilles nombreuses et précieuses dans tous les genres. Enfin quatre autres sont le produit de nos découvertes, ce qui fait un total de vingt-et-une espèces actuellement connues. C'est aux savans travaux de MM. Quoy et Gaimard sur les Mollusques recueillis dans leur voyage de circumnavigation sur la corvète l'Astrolabe que nous devons la connaissance de l'animal de ces coquilles, connaissance qui a fait cesser toute discussion sur leur classement. En effet, les uns voulaient avec Lamarck les admettre parmi les *Sigaretes*, les autres avec Mr. Sowerby les placer au nombre des Natices, tandis qu'elles doivent être séparées de ces deux genres et être intercalées entre les *Coriicelles* de M. De Blainville (*Sigaretus*, Cuvier et Gray, non Lamarck ni Sowerby) et les *Nérites*, dans une famille particulière, à laquelle nous donnons le nom de Velutinides, *Velutinidæ*. Cette famille comprendra les genres *Narica*, *Velutina*, *Fossarus*, et peut-être le genre *Neritopsis*, dont les rapports généraux sont si grands. Nous donnerons dans un autre travail des considérations étendues sur l'affinité de ces genres entr'eux. Nous eussions accepté avec plaisir le nom de *Vanicoro* imposé à ces coquilles par MM. Quoy et Gaimard, s'il n'était du nombre de ceux que la philosophie zoologique rejette comme impropres; de même que celui de *Merria*, proposé par Mr. Gray, s'il n'était postérieur à celui de *Narica* que nous avons fait connaître dans notre correspondance scientifique et publié dans une livraison des 'Mollusques de Cuba' de M. Alc. D'Orbigny, laquelle a paru par livraison avant la vente du 'Beechey's Voyage' de Mr. Gray. Ce nom de *Narica* a été employé autrefois par Théodore Gaza et Scaliger comme synonyme de *Nérita* (voyez Aldrovanda, De Testaceis, lib. ii.), et tire son étymologie de *Nar*, mot primitif qui désigne l'eau courante.

1. *NARICA CIDARIS*. *Nar. testâ orbiculato-ovatâ, ventricosâ, anticâ dilatâtâ, supernè depresso-pland, solidiusculâ, lacted, plicis longitudinalibus anticè laxioribus, subregularibus, lineis elevatis transversis æquidistantibus reticulatâ, scabriusculâ; spirâ prominulâ, semisphæricâ, apice retusâ; aperturâ subrotundâ, patulâ; labio arcuatâ; umbilico parvo, profundo; canali oblongo, angusto et vix arcuatâ.*

*Hab.* "From the island of Masbate, Philippines; found under stones at low water." H. Cuming.

*Dimensions.*—Long. 16 mill.; larg. 19 mill.; convexité 13 mill. *Ouverture*: long. 15½ mill.; larg. 12 mill. *Spire*, hauteur 5½ mill. C'est une espèce fort élégante.

2. *NARICA LIGATA*. *Nar. testâ ventricosô-ovald, tenuiusculâ, albd, longitudinaliter supernèque tenuiter plicatâ, lineis transversis elevatis intermediis minoribus ligatâ; spirâ prominenti, rotundatâ, radiatim plicatâ, apice obtusiusculâ; aperturâ subrotundâ, parvâ; umbilico pervio, spirali, profundo, latiusculo; canali brevi, largo; columellâ subrectâ, medio ad basim arcuatim rotundato.*

*Hab.* "From Catuanam, province of Tayabas, isle of Luzon; found under stones at low water." H. Cuming.

*Dimensions.*—Long. 12 à  $16\frac{1}{2}$  mill.; larg. 19 à 20 mill.; convex. 10 à  $13\frac{1}{2}$  mill. *Ouverture*: long. 11 à 13 mill.; larg.  $8\frac{1}{2}$  à  $10\frac{1}{2}$  mill. *Spire*, hauteur 7 à  $8\frac{1}{2}$  mill.

3. *NARICA DESHAYESIANA*. *Nar. testâ ventricosô-globosâ, tenui, fragili, subepidermide lutescente tenuissimâ exalbidd sive albd, læviter ac creberrimè transversim striatâ; anfractibus subsenis, supernè rotundatis, longitudinaliter argutè plicatis: plicis in ultimo posticè validis, remotiusculis, anticam partem versùs evanescentibus; spirâ semirobundâ, angustè plicatâ, subacutâ; aperturâ subsemilunari; umbilico magno, patulo; canali semilunari ad sinistram et internè carinato, externè radiatim profundè ac eleganter plicato; columellâ intus et ad basim sinuatâ.*

*Var. β.* *Testâ ventricosô-ovald, subglobosâ, plicis obsoletis; infimo anfractu angustiore.*

*Hab.* "From St. Nicholas, island of Zebu, Philippines; found under stones at low water: and var. β from Catanauan, province of Tayabas, isle of Luzon; found under stones at low water." H. Cuming.

*Dimensions.*—Long. 15 à 17 mill.; larg. 16 à 19 mill.; convex. 12 à 13 mill. *Ouverture*: long.  $12\frac{1}{2}$  à 15 mill.; larg.  $8\frac{1}{2}$  à  $10\frac{1}{2}$  mill. *Spire*, hauteur 6 à 7 mill.

La var. β a la forme de la *Nar. ligata*, mais en diffère par ses stries toujours très fines, par ses plis nuls ou très peu apparent même au côté postérieur, par sa columelle sinueuse à sa base, et par les stries profondes qui entourent le pourtour de l'ombilic, comme sur le type auquel nous la réunissons. C'est au digne successeur des Bruguière et des Lamarck, c'est à l'émule de Sowerby que nous dédions cette belle espèce de Narice.

Opercule ovalaire, très mince, presque papyracé, cartilagineux, transparent, paillé, sans élémens spiraux au sommet, mais formant un angle par la réunion en faisceau des stries longitudinales rapprochées, rayonnant du sommet à la circonférence où elles se dirigent dans un seul légèrement arqué. Des stries circulaires et obsoletes, beaucoup plus pressés, croissent les longitudinales sans former de treillis sensible à la vue.

4. *NARICA PETITIANA*. *Nar. testâ orbiculato-ovald seu semiglobosâ, crassâ, albidd, obliquè et crebrè plicatâ, lineis elevatis transversis, irregularibus, angustioribus et remotioribus reticulatâ; anfractibus depresso-rotundatis; spirâ semisphæricâ, obtusatâ, posticè incurbente; radiatim plicatâ; aperturâ subrotundâ, dilatâtâ; labio vix arcuato, margine in senioribus externè complanato, submedio vix anguloso; umbilico parvo; canali angusto, elongato, parum arcuato et angulo angusto cincto.*

*Hab.* "From the island of Masbate, Philippines; found under stones at low water with *Narica cidaris*." H. Cuming.

*Var. β.* *Testd tenuiore, plicis angustis regulariter dispositis, lineis transversis æquidistantibus clathratd, scabriusculd; umbilico magno, profundo, spiraliter contorto; canali latiusculo, profundo, falciformi.*

*Dimensions.*—Long. 20 à 24½ mill.; larg. 24 à 27½ mill.; convex. 16½ à 20 mill. *Ouverture*: long. 18 à 23 mill.; larg. 14 à 13 mill. *Spire*, hauteur 9½ à 10½ mill.

5. *NARICA CUMINGIANA.* *Nar. testd semiglobosd, ventricosd, tenuiusculd, exalbidd, transversim regulariter sulcatd, longitudinaliter ac obliquè lineatd, cancellatd, scabriusculd, ad sectiones granulatd; spirâ prominuld, suprâ planâ, latere carinatd, sulcis reticulatd et punctis valdè impressd; apice posteriori, acuto; aperturâ dilatâd, semilunari; umbilico profundo, coarctato, canali semilunari-oblongo, extûs annulo acuto cincto; labio supernè tenui, infernè incrassato; labro intûs submarginato.*

*Hab.* "From Catbalonga, island of Samar, Philippines; found in coarse sand at ten fathoms." H. Cuming.

*Dimensions.*—Long. 13 mill.; larg. 13½ mill.; convex. 10 mill. *Ouverture*: long. 11 mill.; larg. 8 mill. *Spire*, hauteur 5 mill.

C'est à l'infatigable voyageur, à l'auteur d'un grand nombre de découvertes de coquilles intéressantes, que nous dédions cette belle espèce de Narice, remarquable par sa spire sculptée de trous imitant ceux d'un dé à coudre.

6. *NARICA PPLICATA.* *Nar. testd ventricosd-ovatd, subglobosd, solidâ, albâ, longitudinaliter grossè plicatâ, lineis elevatis crebrioribus costas decussantibus circumcinctâ; anfractibus supernè depresso-planiusculis; spirâ prominuld, laterali, subacutâ; aperturâ subrotundâ; umbilico latiusculo, profundo, spirali; canali semilunari, crenulis profundis extûs cincto; columellâ arcuatâ, basi et anticè gibbosiusculd.*

*Hab.* "From the island of Ticao; found under stones at low water." H. Cuming.

*Dimensions.*—Long. 17 mill.; larg. 19 mill.; convex. 14 mill. *Ouverture*: long. 13 mill.; larg. 10 mill. *Spire*, hauteur 7 mill.

Belle espèce voisine par sa forme de la *Narica ligata*, dont elle diffère par ses plis et son ouverture.

7. *NARICA GUERINIANA.* *Nar. testd orbiculato-ovatd, depressd, subconoided, subtûs planâ, crassd, albido-lutescente, obliquè costatâ; costis rotundatis sulcis majoribus, interdum equalibus, lineis transversis creberrimis eleganter cinctâ; spirâ semiglobosd, obtusiusculd; aperturâ semilunari, patuld; umbilico profundo, extûs dilatato, in canalem latum, semisphæricum, extûs angulatum explanato; columellâ rectâ, suprâ lined tenuiter impressd instructâ.*

*Hab.* "From the island of Capul, Philippines; found under stones at low water." H. Cuming.

*Dimensions.*—Long. 9 à 12½ mill.; larg. 11 à 15 mill.; convex. 7 à 9 mill. *Ouverture*: long. 9 à 11 mill.; larg. 6 à 8 mill. *Spire*, hauteur 5½ à 6 mill.

Nous faisons hommage du nom de cette belle Narice à M. Guérin-Méneville, savant entomologiste Français, auquel la conchyliologie doit la connaissance de beaucoup de Mollusques nouveaux dont il gratifie généreusement les disciples de cette science.

8. *NARICA DISTANS*. *Nar. testâ parvâ, orbiculato-conicâ, tenuiusculâ, pellucidâ, albâ, costis longitudinalibus obliquis, angustis acutis valdè remotis, regulariter radiatâ, interstitiis sub lente tenuissimè et creberrimè striatis; spirâ exsertiusculâ, gradatâ, conico-acutâ; aperturâ semirotondâ; umbilico dilatato, profundo; canali largo, semicirculari, intùs striato, extùs angulo acuto circumdato.*

*Hab.* "From Jacna, isle of Bohol, Philippines; found under stones at low water." H. Cuming.

*Dimensions.*—Long. 7 mill.; larg. 8 mill.; convex.  $5\frac{1}{2}$  mill. *Ouverture*: long. 5 mill.; larg. 4 mill. *Spire*, hauteur 3 mill.

Les côtes de cette Narice ont un demi millimètre de hauteur.

9. *NARICA ROSEA*. *Nar. testâ minimâ, semiglobosâ, rosâ, tenui, striato-cancellatâ, regulariter granosâ; anfractibus tribus, supernè depresso-planiusculis; spirâ prominulâ, apice levi, mammillatâ, rubicundâ; aperturâ semirotondâ; columellâ rectiusculâ, albâ, umbilico largo, extùs in canalem latiusculum, semiorbicularem producto; labro intùs striato.*

*Hab.* Les Moluques (M. Hardouin-Michelin).

*Dimensions.*—Long. 3 mill.; larg. 3 mill.; convex. 2 mill. *Ouverture*: long.  $2\frac{1}{3}$ , larg.  $2\frac{1}{2}$ . *Spire*, hauteur  $1\frac{1}{3}$  mill. Cabinet de M. Récluz. Sa petitesse la rend très rare.

10. *NARICA GRANULOSA*. *Nar. testâ parvâ, semiglobosâ, tenui, subpellucidâ, albâ sive albido-lutescente; anfractibus supernè planulatis, ferè gradatis, transversim regulariter striato-costatis; costis angustioribus obliquè striatis ac cancellato-granosis; spirâ prominulâ, semiglobosâ, acutâ; aperturâ semirotondâ, vitred; columellâ tenui vix arcuatâ; umbilico profundo; canali latiusculo, semicirculari.*

*Var. β.* *Testâ albo-vitred, hyalind.*

*Hab.* Les Moluques et la Nouvelle Hollande.

*Dimensions.*—Long. 7 mill.; larg. 9 mill.; convex. 6 mill. *Ouverture*: long. 6 mill.; larg. 5 mill. *Spire*, hauteur 4 mill. Cabinet de M. Récluz. Peu commune.

11. *NARICA ORBIGNYANA*. *Nar. testâ ovato-globosâ, crassiusculâ, lacted, transversim cingulatâ: cingulis 5-6 obtusis, majoribus, lineis longitudinalibus decussantibus, cancellato-granosâ; spirâ planissimâ, ad peripheriam tricarinatâ: carinis obtusis, infimis majoribus; apice valdè laterali, acuto, hyalino, lævissimo; aperturâ ovato-rotundatâ; columellâ basi crassiusculâ et anticè calloso-gibbâ, supernè tenuissimâ; umbilico minimo, subclauso; canali lineari subrecto.*

*Hab.* La Nouvelle Hollande, sur les côtés de l'île Maria; très rare.



Cabinet de M. Récluz. Les caractères la rendent très distincte dès *Narica Cumingiana* et *N. sulcata* (D'Orbigny).

*Dimensions*.—Long. 12 mill. ; larg.  $12\frac{1}{2}$  mill. ; convex. 8 mill. *Ouverture* : long. 10 mill. ; larg. 7 mill. *Spire*, hauteur  $5\frac{1}{2}$  mill.

12. *NARICA BLAINVILLEANA*. *Nar. testâ ovato-globosâ, anticè dilatâ, striis transversis inæqualibus aratâ, posticè tenuiter plicatâ : plicis anticè obsoletis ; spirâ parvâ, semisphæricâ, regulariter plicatâ, laterali, apice fuscâ ; aperturâ subrotundâ, lacteâ ; columellâ arcuatâ, basi et intus subcompressâ ; umbilico profundo, angustâ, in canalem semilunarem productâ ; labro rotundato, intus lævissimè striato,*

*Hab.* Les Moluques.

*Dimensions*.—Long. 10 mill. ; larg. 11 mill. ; convex.  $8\frac{1}{2}$  mill. *Ouverture* : long. 9 mill. ; larg. 7 mill. *Spire*, hauteur 4 mill. Cabinet de M. Récluz.

Cette espèce a beaucoup de ressemblance avec le *Narica cancellata*, nob. (*Sigaretus cancellatus*, Lamarck ; *Merria cancellata*, Gray.) Elle est toujours plus petite, moins mince et transparente, à spire plus saillante, et à dernier tour nullement treillisé ni rude au toucher. Elle est assez rare.

13. *NARICA SIGARETIFORMIS*. *Nar. testâ globoso-acutâ, tenui, exalbida, pellucidâ, fragili ; anfractibus 5-6 transversim subtilissimè striatis ; spirâ prominenti, conico-acutâ ; apice elongato, corneo-fusco ; aperturâ semirotondâ ; columellâ tenuissimâ, viz rectâ ; umbilico rotundato, dilatato, profundo, spirali, in canalem subsenis oblongum productâ.*

*Velutina Sigaretiformis*, Potier, Gal. Moll. Mus. Douai, pl. 39. f. 21, 22, *male*.

*Hab.* La Nouvelle Hollande, très rare.

*Dimensions*.—Long. 7 mill. ; larg. 7 mill. ; convex.  $5\frac{1}{4}$  mill. *Ouverture* : long. 5 mill. ; larg. 3 mill. *Spire*, hauteur  $2\frac{3}{8}$  mill.

M. Potier a donné de cette espèce une description très vague et incomplète qui ne permet pas de la reconnaître ; elle n'est pas d'ailleurs dans les formes suivies dans les sciences. Les figures que cet auteur a publiées ne montrent pas le *nucleus* allongé, cylindrique, aigu, très fin et d'un corré-brun qui caractérise cette Narice. Ces diverses considérations m'ont porté à en donner une description plus correcte. Cabinet de M. Récluz.

"Descriptions of new species of *Delphinula*, a genus of pectinibranchiate Mollusks, collected for the most part by H. Cuming, Esq. in the Philippine Islands," by Mr. Lovell Reeve.

1. *DELPHINULA SCALARIOIDES*. *Delph. testâ globulosâ, albâ ; anfractibus rotundis, varicosis, varicibus elevatis, solidis, annuliformibus ; interstitiis transversè striatis, striis elevatis ; intus margaritacè.*

*Conch. Icon. Delphinula*, pl. 3. fig. 11, *a* and *b*.

*Hab.* Island of Mindanao, Philippines (under stones at low water) ; Cuming.

The whorls of this species, which is not punctured like the *Delphinula Peronii*, are encircled with solid rings about seven to the whorl, after the manner of a *Scalaria*; the shell might indeed be mistaken for one, were it not for its solidity and pearly interior.

2. *DELPHINULA VARICOSA*. *Delph. testâ angulato-globosâ, albâ, foraminibus sparsim puncturatâ; anfractibus supernè angulatis, fortiter varicosis, varicibus multicarinatis et elevato-striatis; intus margaritaced.*

Conch. Icon. *Delphinula*, pl. 3. fig. 12, *a* and *b*.

*Hab.* Island of Corregidor, Philippines (found in sandy mud); Cum-  
ming.

This species differs from the *Delphinula Peronii* in having the spire more prominent, and varices entirely across the whorls; they are also more strongly and closely set; the shell is moreover much more sparingly punctured.

3. *DELPHINULA DEPRESSA*. *Delph. testâ plano-rotundatâ; spirâ valdè depressâ, foraminibus puncturatâ; albâ; anfractibus supernè angulatis, fortiter varicosis, varicibus ad angulum acuminato-elevatis; intus margaritaced.*

Conch. Icon. *Delphinula*, pl. 3. fig. 14, *a* and *b*.

*Hab.* Island of Camiguin, Philippines (under stones at low water); Cumming.

No one can fail to recognize this species, by its depressed spire and by the pointed elevation of the varices on the angle of the whorls.

4. *DELPHINULA DISCOIDEA*. *Delph. testâ discoïdè; spirâ plano-depressâ, liris longitudinalibus et transversis, interstitiis subtiliter striatis, eximè clathratâ; peripheriâ carinis duabus clathratis prominentibus ornatâ.*

Conch. Icon. *Delphinula*, pl. 4. fig. 15, *a* and *b*.

*Hab.* Cagayan, island of Mindanao, Philippines (found in coarse sand at the depth of ten fathoms); Cumming.

The latticed sculpture of this shell very much resembles the character of a figure in plate 31 of the 'Magasin de Zoologie' for 1834, under the appellation of *Delphinula adamantina*, Duclos. It differs, however, essentially from that species in form, and I regret to say the *D. adamantina*, according to the figure alluded to, is quite unknown to me, though elaborately described by Deshayes in the ninth volume of his edition of Lamarck's 'Animaux sans vertèbres.'

5. *DELPHINULA EVOLUTA*. *Delph. testâ spirâliter discoïdè, partim evolutâ; anfractibus subquadratis, marginibus corrugato-crenatis.*

Conch. Icon. *Delphinula*, pl. 4. fig. 16, *a* and *b*.

*Hab.* Island of Corregidor, Bay of Manila (found in coarse sand at the depth of seven fathoms); Cumming.

The loose manner in which this shell is rolled, giving it the appearance of a miniature hunter's-horn, is not a casual deformity. Several specimens were collected by Mr. Cumming at the above-mentioned island.

6. *DELPHINULA MURICATA*. *Delph. testâ turbinatâ, pallidè aurantio-*

*fulva*, maculis coccineis vivide aspersa; anfractibus carinis tribus prominentibus muricato-squamulosis cincta, supra et infra subtiliter corrugato-striatis; suturis peculiariter profundis.

Conch. Icon. *Delphinula*, pl. 4. fig. 18, *a*, *b* and *c*.

*Hab.* East Indies; Humphreys MSS.

This is by no means a newly-discovered species, the specimens here figured having been found in the old collection of the late Mr. George Humphreys, with the name and locality above used attached to them in his handwriting.

7. *DELPHINULA CLATHRATA*. *Delph. testâ subdiscoidea, anfractibus rotundatis, carinulis transversis et longitudinalibus æquidistantibus regulariter clathratis; labro incrassato, marginato; umbilico per-amplio.*

Conch. Icon. *Delphinula*, pl. 5. fig. 21, *a* and *b*.

*Hab.* Island of Corrigidor, Bay of Manila (found in coarse sand at the depth of seven fathoms); Cuming.

A small species, with a regular latticed surface.

8. *DELPHINULA COBIJENSIS*. *Delph. testâ turbinatâ, minutâ; anfractibus convexis, carinulis transversis et longitudinalibus, æquidistantibus regulariter clathratis; umbilico mediocri; labro simpliciter.*

Conch. Icon. *Delphinula*, pl. 5. fig. 22, *a* and *b*.

*Hab.* Port of Cobija, Peru (found under stones in rocky places at low water); Cuming.

The sculpture of this shell, familiarly known to Mr. Cuming as his "little Cobija species," is exactly similar to that of the *D. clathrata*; it is however much less discoid in form, the whorls are not so round, the umbilicus is smaller, and the lip is not marginated.

9. *DELPHINULA SYDEREA*. *Delph. testâ turbinatâ, spirâ plano-concavâ, apice interdum rosaceo, anfractibus angulato-convexis, tuberculis muricatis, in seriebus duabus aut pluribus radiatim stellatis; labro incrassato, marginato.*

Conch. Icon. *Delphinula*, pl. 5. fig. 23, *a* and *b*.

*Hab.* Island of Camiguin, Philippines (found under stones at low water); Cuming.

The leading feature of this species, and which is especially prominent in young specimens, is its peculiar star-like display of tubercles; the concave flatness of the spire is also remarkable.

10. *DELPHINULA CIDARIS*. *Delph. testâ subgloboso-turbinatâ, solidâ; anfractibus transversim et longitudinaliter tuberculato-costatis, costis longitudinalibus majoribus, prominentioribus; anfractuum parte inferiori foraminosâ.*

Conch. Icon. *Delphinula*, pl. 5. fig. 27.

*Hab.* Calapan, island of Mindoro, Philippines (found in coarse sand at the depth of ten fathoms). This is the roundest and most solid species of the genus.

Mr. Reeve also described a fine new species of *Voluta*, collected

off the coast of New Holland, north of Swan River Settlement, in H.M.S. Beagle.

*VOLUTA RETICULATA.* Vol. testâ elongato-ovatâ, lævigatâ, pallidè fulvâ, fusco vel spadiceo-fusco per totam superficiem subtilissimè trigono-reticulatâ, reticulâ bifasciatim confusâ; anfractibus flammis brevibus spadiceis longitudinalibus, prominentibus, prope suturas vividè pictis; apertura fauce spadiceo-fusca. Long.  $3\frac{1}{2}$  in.; lat.  $1\frac{1}{2}$ .

*Hab.* Coast of New Holland, north of Swan River Settlement.

This beautiful new Volute somewhat resembles the *Voluta pallida* in form, and is of nearly the same ground tint of colour; here, however, the resemblance ceases, it being entirely covered with a fine brown net-work, with two broad bands formed by a rich amalgamation of the net-work. The most striking feature of the shell is in the upper part of the whorls being vividly ornamented with a close-set row of undulating flames of rich brown running down from the sutures, and the enamelled lining of the aperture is of the same uniform rich brown. Of the two specimens just imported in H.M.S. Beagle, one is in the collection of Thos. Norris, Esq., of Redvalves; the other in that of J. Dennison, Esq., of Woolton Hill. There is a bad specimen of this Volute in the British Museum, and another in the collection of William Metcalfe, Esq.

Prof. Owen then read the second and concluding part of his memoir on the *Dinornis*\*.

The arrival of the second box of specimens of the bones collected by the Rev. W. Williams in Poverty Bay, New Zealand, which had been placed by Dr. Buckland in Mr. Owen's hands, had enabled him to confirm his former account of the generic characters and ordinal affinities of the apparently extinct *Dinornis*, and also to distinguish remains of five species of that genus.

The bones of the foot, and especially the tarso-metatarsal bone, established three distinct species, the largest of which the author proposed to call *Dinornis giganteus*; the next in point of size he termed *Din. struthoides*, and the third *Din. didiformis*. The common generic characters of the tarso-metatarsi of these species were first pointed out, and then their specific differences of proportion and figure. The maturity of the different-sized bones indicating the above species was demonstrated by reference to the long retention of immature characters in the same bone of existing *Struthionidæ*, and by the fact of a tarso-metatarsal bone of a half-grown *Dinornis giganteus* manifesting the same incomplete coalescence of its primitively distinct elements; showing that the *Dinornis*, like the Ostrich, had a tardy ossification of the skeleton, as compared with birds of flight. The tibiae were next described; one of these, belonging to a mature bird, established a species smaller than the *Din. didiformis*, and which, from its similarity of stature to the great Bustard (*Otis tarda*), Prof. Owen proposed to call *Dinornis otidiformis*. The

\* See Proceedings, January 1843.

largest tibia, belonging to the *Din. giganteus*, presented the extraordinary dimensions of two feet eleven inches. The shaft of a smaller tibia, about two feet long when entire, was referred to the *Din. struthoides*, and there were four entire tibiae of the *Din. didiformis*. In the series of femora, after the description of the generic characters of the bone, the specimens were pointed out which belonged to the *Dinornithes giganteus*, *struthoides*, *didiformis*, and *otidiformis*, and two other entire femora were described and their distinctive characters shown, which indicated, unequivocally in the author's opinion, a fifth species of *Dinornis*, of the size of the Emeu, and which was, therefore, named *Din. dromæoides*.

Three pelves, more or less perfect, and portions of two others, were described, and were referred to the *Din. giganteus*, *dromæoides*, and *didiformis*. Three cervical and two dorsal vertebrae also indicated three distinct species of *Dinornis*, and all of them presented the common character of unusual strength of the spinous and transverse processes. Comparative dimensions of most of the bones exhibited were given. No part of the skull, sternum, ribs or wing-bones had been transmitted, but Prof. Owen proceeded to point out the physiological grounds for concluding that the development of the anterior extremities must have presented in the *Dinornis* an intermediate condition between that in the Emeu and that in the Apteryx.

The author then gave his calculations, from the analogies of existing Struthious birds, of the height of the different species of *Dinornis*. The largest, *Din. giganteus*, according to the proportions of the Ostrich, must have stood ten feet five inches, but according to those of the Cassowary, nine feet five inches; its average stature might be taken at ten feet. A diagram of the great extinct bird, restored according to these proportions, was exhibited.

The *Dinornis struthoides* was seven feet high, which is the average stature of the *Struthio Camelus*.

The length of the tibia and metatarsus of the *Din. dromæoides* not yet being known, the height of five feet was assigned to it as a probable one; its femur corresponds in size with that of the Emeu, whose average measurement in captivity is between five and six feet.

The height of the *Din. didiformis* was four feet; exceeding, therefore, the extinct Dodo (*Didus ineptus*), but evidently resembling it in its stouter proportions and shorter metatarsus, as compared with the other species of *Dinornis*.

Prof. Owen next proceeded to consider the evidences of tridactyle birds afforded by the impressions in the New Red Sandstone of Connecticut, called 'Ornithichnites,' and having pointed out the proportions of the tarso-metatarsal bone in existing Struthious birds to their foot-prints, indicated thereby the size of the same bone in different *Ornithichnites*, and reciprocally the sizes of the foot-prints of the different *Dinornithes*, from those of their tarso-metatarsal bones.

The two phalanges of the *Dinornis*, which were described and compared in this section of the memoir, afforded pretty clear indications of the form and proportions of the toes in the two species

(*giganteus* and *didiformis*) to which they were referred. These data showed that the tridid foot-print of the *Dinornis giganteus* must have exceeded in size the *Ornithichnites giganteus* and *O. ingens* of Prof. Hitchcock, and that the *Din. didiformis* must have left impressions as large as those called *Ornithichnites tuberosus*. The author warned his hearers against inferring identity of species or even genus between the extinct *Struthionidae* of the alluvium of New Zealand and those of the trias of North America, on account of correspondence of size and number of toes, which the modern genera *Casuaris*, *Rhea*, &c. proved to be insufficient grounds. He concluded by a comparative review of recent and extinct *Struthionidae*, remarking on their peculiar geographical distribution, on the conditions which favoured the former existence of so rich a development of the family in New Zealand, and on the probable causes of their extermination. Evidence of the recent character of the bones described was afforded by the great proportion of animal matter which they retained, and the details of the analysis of the earthy salts were promised for a future Meeting.

December 12, 1843.

William Yarrell, Esq., V.P., in the Chair.

A paper from Dr. J. B. Thompson was read, "On some forms of malignant disease in the Inferior Animals, with remarks on the advantage of Comparative Pathology generally."

Mr. Gould laid before the Meeting an extensive series of Toucans, and called attention to two species which had not hitherto been characterized, viz.:—

**RAMPHASTOS CITREOLÆMUS.** *Ramp. rostro nigro, vittâ latâ basali, et culmine olivaceo-viridibus, hoc colore gradatim cum flavido apud apicem mandibulæ utriusque se commiscente; ptilose nigrâ; guld albâ; pectore sulphureo, vittâ splendide coccineâ cincto; tectricibus caudæ superioribus sulphureis.*

Bill black, with a very broad basal band, and the culmen of an olive-green, passing into pale yellow on the points of both mandibles, and deepening into orange at the gape; the ridge round the base of the bill black; crown of the head, back of the neck, all the upper surface, wings, tail, breast, abdomen and thighs deep black; throat white; chest sulphur-yellow, bounded below by a band of rich deep scarlet; upper tail-coverts sulphur-yellow; under tail-coverts rich deep scarlet.

Total length, 21 inches; bill,  $5\frac{1}{2}$ ; wing,  $8\frac{1}{2}$ ; tail,  $7\frac{1}{2}$ ; tarsi,  $1\frac{3}{4}$ .

*Hab.* Santa Fé de Bogota.

In the collection of Prince Massena at Paris, and in my own.

**PTEROGLOSSUS PÆCILOSTERNUS.** *Pt. culmine rostri, strigâ angustâ ad basim mandibulæ superioris; sic et mandibulâ inferiore totâ nigerrimis; mandibulis utrisque ad basim lined prominente angustâ aurantiacâ circumdatis; mandibulæ superioris lateribus bellè aurantiacis; capite et guld splendide nigerrimis; dorso, alis caudæ saturatè viridi-olivaceis; corpore inferiore sulphureo, vittâ pectorali nigrâ, alterâ sanguineâ.*

Culmen, a narrow band down the base of the upper mandible and the whole of the under mandible deep black; narrow elevated ridge surrounding the base of both mandibles orange; sides of the upper mandible beautiful orange, fading into white towards the tip, which is stained with red; head and throat deep glossy black; back, wings and tail dark olive-green; rump and upper tail-coverts rich deep blood-red; all the under surface sulphur-yellow, crossed on the chest by an irregular band of black, and on the breast by another of deep blood-red; the interspaces stained with scarlet; thighs chestnut, each feather slightly fringed with sulphur-yellow.

No. CXXX.—PROCEEDINGS OF THE ZOOL. SOC.

Total length, 18 inches; bill,  $4\frac{1}{2}$ ; wing, 6; tail,  $7\frac{1}{4}$ ; tarsi,  $1\frac{3}{8}$ .

*Hab.* Santa Fé de Bogota.

In the collection of Prince Massena at Paris.

Professor Owen read a communication on the Rudimental Marsupial Bones in the *Thylacinus* :—

The marsupial bones, as bones, do not exist in the Dog-headed Opossum or Hyæna of the Tasmanian colonists (*Thylacinus Harrisii*, Temm.); they are represented by two small, oblong, flattened fibro-cartilages, imbedded in the internal pillars of the abdominal rings, and appear each as a thickened part of the tendon of the external oblique abdominal muscle, which forms the above pillar. The length of the marsupial fibro-cartilage is six lines, its breadth from three to four lines, its thickness one line and a half.

This was the condition of the rudimental marsupial bones in two full-grown females and one male specimen of the *Thylacinus* : in a fourth, large and old male a few particles of the bone-salts were deposited in the centre of the fibro-cartilage, occasioning a gritty feeling when cut across by the knife.

This unexpected and very remarkable modification of the most characteristic part of the skeleton of the Marsupialia, in one of the largest of that order, has many important bearings upon the physiology of the problematical 'ossa marsupialia.' They have been most commonly supposed to serve for the support of the marsupial pouch and young; but this pouch is well developed in the female Thylacine, and in one of the specimens which I dissected four well-developed teats, each two inches long, indicated that it had contained four young ones when, or shortly before, it was killed. The existence of the marsupial bones in the male as well as the female sex in other marsupial animals had already invalidated the above physiological explanation, and it equally opposes the idea of the use of the marsupial bones, propounded by M. de Blainville,—that they aid in the compression required to expel the embryo. Besides, it is not in the females of those animals which give birth to the smallest young that we should expect to find auxiliary bones for increasing the power of the muscles concerned in parturition. My view of the uses of the marsupial bones, as explained in the 'Philosophical Transactions' for 1834, is, that they relate more immediately to an increase of power in the muscles (*cremasteres*) which wind round them, than of those implanted in them: and to the extent to which the cartilaginous representatives of the ossa marsupialia in the Thylacine strengthen the pillars of the abdominal ring, they must increase the contractile force of the compressors of the mammary glands and teats, which are situated and surrounded by the cremasteres in the Thylacine, as in other Marsupialia. Nevertheless, the almost obsolete condition of the ossa marsupialia in the Thylacine, and their very various relative sizes in other Marsupialia, are circumstances which seem incompatible with the same kind and degree of use in all the species: they are very slender, and not above half an inch in length in the *Myrmecobius*, whilst in the Koala they nearly equal the iliac bones in size.



The so-called 'pyramidales' muscles, which derive a great proportion of their origin from the ossa marsupialia, bear a direct ratio to those bones in size; and an attentive observation of the habits and modes of locomotion of the different marsupial species is still wanting for a complete elucidation of the function of the marsupial bones. It is important to the palæontologist that the cartilaginous condition of the marsupial bones in the Thylacine should be borne in mind in regard to the evidences of the marsupial order that may be yielded by fossil remains: the fossil pelvis of the Thylacine, for example, had that species been long ago, as it soon is likely to be, extinct, would never have afforded the triumphant evidence to which Cuvier appealed in demonstration of the *Didelphys* of the gypsum quarries at Montmartre; yet the Thylacine would not therefore have been less essentially a marsupial animal. This may teach us to pause before drawing a conclusion against the marsupial character of the small Stonesfield mammalia, if their pelves should ever be found without trace of the ossa marsupialia.

"Descriptions of new Shells, collected during the voyage of the Sulphur, and in Mr. Cuming's late visit to the Philippines," by Mr. Hinds.

Abstract of the accompanying descriptions of shells:—

The number of well-authenticated species of *Terebra* hitherto on record is about sixty. In the present paper exactly fifty more are added, all of which are presumed to have been hitherto unrecorded. Of this number sixteen are from the Indian seas, six are from the African seas, twelve are from the American seas, and five are from the Pacific; and the whole, without exception, from within the Tropics. The localities of eleven are unknown.

They most usually occur under a small incumbent pressure, generally at a depth of from five to eighteen fathoms. Some are found about low water, and with much constancy they affect situations where the floor of the ocean is composed of sandy mud.

#### TEREBRA, Bruguière.

**TEREBRA ROBUSTA.** *Ter. testâ turrito-subulatâ, solidâ, ponderosâ, albidâ, flammeis longitudinalibus interruptè pictâ; anfractibus inferioribus rotundatis, indivisis, lævigatis, superioribus versùs extremitatem spiræ subplanulatis, unocinguliferis, longitrorsum plicatis; anfractu ultimo rotundato triseriatim picto, ad basin coarctato; aperturâ elongatâ; columellâ arcuatâ, subcallosâ; epidermide luteofusca; operculo parvo, crasso.* Axis 57 lin.

**Hab.** West coast of America, between 8° 57' and 21° 32' north latitude; namely at Panama, Gulf of Nicoya, Gulf of Papagayo, and San Blas: in from four to eighteen fathoms, sandy mud.

**Cab.** Belcher and Cuming.

**TEREBRA SUCCINEA.** *Ter. testâ subulatâ, acuminatâ, succined, lævigatâ; anfractibus planulatis, lineâ impressâ divisâ, longitrorsum*

*plicis obsoletis vel lineis arcuatis incrementi minutis, transversim infrà lineam impressam, leviter striatis; areâ subconcavi, punctis parvis fuscis distantibus biserialim cinctâ, versus margines tuberculato-incrassatâ. Axis 54 lin.*

*Hab.* — ?

*Cab.* Cuming.

Two specimens of this elegant species are in the above collection, without any history attached to them; they have evidently been highly cleaned, but retain the appearance of having been once covered by an epidermis.

**TEREBRA CONSORS.** *Ter. testâ gradatim subulatâ, lævigatâ, politâ, albidâ, flammeis pallidis fuscis ornatâ; anfractibus subplanulatis, supernè lineâ impressâ divisâ, areâ superiore spirâ leviter tuberculatâ; anfractu ultimo prope basin fasciato; aperturâ infernè subeffusâ; columellâ breviusculâ. Axis 31 lin.*

*Hab.* Tahiti, Society Islands.

*Cab.* Cuming.

Its nearest ally is *T. dimidiata*, than which it is far more gradually subulate; the upper area of the divided whorl is raised and somewhat rounded; the white is the base colour of the shell, and the last whorl is distinctly banded.

**TEREBRA SPECTABILIS.** *Ter. testâ subulatâ, lævigatâ, politâ; anfractibus supernè sulco impresso divisâ, infrà longitrorsum plicatis, interstitiis lævigatis, medio saturatè castaneis, infernè albis; cingulo tuberculato, albido; anfractu ultimo fasciato; columellâ elongatâ. Axis 13½ lin.*

*Hab.* Guinea, on the sands: Humphrey. Sumatra, on the sands: Ellis.

*Cab.* Cuming.

**TEREBRA BICINCTA.** *Ter. testâ subulatâ, lævigatâ, nitidâ; anfractibus rotundatis, indivisis, longitrorsum plicatis, supernè areâ coarctatâ, transversim biserialim super plicas minutè tuberculatis; plicis tenuibus, acutis, interstitiis lævigatis; anfractu ultimo concolore. Axis 12½ lin.*

*Hab.* — ?

*Cab.* Cuming. Unique.

Remarkably and very distinctly characterized by the two rows of small tubercles which encircle the whorls. The shell is otherwise of an uniform white glassy colour, which might be attributable to its condition.

**TEREBRA FATUA.** *Ter. testâ turrito-subulatâ, albidâ, lævigatâ, politâ; anfractibus subplanulatis, superioribus lineâ impressâ cinctis, maculis fuscis pallidis distantibus biserialim ornatis; spirâ obsoletè plicatâ; anfractu ultimo elongato, maculis exceptis, unicolore. Axis 34 lin.*

*Hab.* St. Christopher, West Indies; on the sand: Mr. Miller, 1799.

*Cab.* Cuming.

**Terebra nimbosea.** *Ter. testâ elongatè conico-subulatâ, acuminatâ, lacteâ, strigis longitudinalibus nubeculatâ; anfractibus planulatis, lævigatis, politis, integris, infernè propè suturam albâ, angustè fasciatâ, ultimo fasciato; columellâ lævi, truncatâ. Axis 25 lin.*

*Hab.* — ?

*Cab.* Cuming.

**Terebra copula.** *Ter. testâ elongatè turrito-subulatâ, acuminatâ, lævigatâ, nitidâ, saturatè castaneâ; anfractibus subrotundatis, supernè cingulo tuberculato cinctis, infrâ plico-costatis; cingulo atro-castaneo fasciato, rarè intervallis tantùm maculato, interstitiis lævigatis; anfractu ultimo parvo, rotundato, propè basin duabus fasciis albis angustis ornato. Axis 17 lin.*

*Hab.* Guinea, on the sands: Humphrey.

*Cab.* Cuming.

**Terebra alveolata.** *Ter. testâ turrito-subulatâ, attenuatè acuminatâ, nitidâ, fuscâ; anfractibus subplanulatis, supernè cingulo tuberculato cinctis, infrâ plico-costatis, interstitiis striatis; cingulo et anfractu ultimo albo fasciato, maculis quadratis rufis articulato. Axis 16 lin.*

*Hab.* Straits of Malacca; in seventeen fathoms, among mud.

*Cab.* Belcher.

The description is drawn up from a somewhat young specimen, and the mouth and last whorl have not yet attained their full development. The character of the shell is however very conspicuous. In this genus the last whorl will be found very frequently to offer decided features, and becomes a valuable aid in the diagnosis.

**Terebra pulchra.** *Ter. testâ turritâ, conico-subulatâ, acuminatâ, nitidâ, pallidâ; anfractibus subplanulatis, longitrorsum rectè plico-costatis, supernè lined impressâ cinctis, interstitiis lævigatis; anfractu ultimo pallidè lineato. Axis 11 lin.*

*Hab.* Marquesas; in seven fathoms.

*Cab.* Belcher.

Perhaps more nearly resembling *T. plicata* than any other species, from which, with a little care, the description will suffice to distinguish it. The specimens were collected at the Marquesas group of islands, which scarcely offer any particular novelty in any department of natural history; and the greatest exception will be found among *Terebra*, of which it has a few peculiar species, and also some interesting varieties of other well-known kinds. Indeed, though the group is by no means the metropolis of the genus, the species would seem to exist here under some peculiar circumstances.

**Terebra columellaris.** *Ter. testâ elongatâ, subcylindraceâ, turrito-subulatâ, aurantiacâ albo nebulosâ; anfractibus subrotundatis, longitrorsum undatè plico-costatis, supernè lined impressâ cinctis; interstitiis rufis, striatis; anfractu ultimo breviusculo, rotundato, albo fasciato. Axis 19 lin.*

*Hab.* — ?

*Cab.* Cuming.

Remarkable from its great similarity to *T. undulata*, which is itself a peculiar species. The grounds of distinction are its decidedly cylindrical shape, different distribution of the colour, and its short, abrupt, rounded and banded last whorl.

*TEREBRA NITIDA.* *Ter. testâ obeso-subulatâ, acuminatâ, pallide plumbea, politâ; anfractibus subplanulatis, rectè plico-costatis, supernè interstitiis lineâ punctatâ cinctis, ultimo parvo subattenuato, unicolore, plicis evanidis; labio interno producto; labro anticè sub-sinuoso.* Axis 10 lin.

*Hab.* Marquesas; in seven fathoms, sandy mud.

*Cab.* Belcher.

An excellent diagnostic character exists in this species, in the circumstance that the girdling line which traverses the upper part of each whorl does not cross the ribs, but is confined to the interstices.

*TEREBRA VARICOSA.* *Ter. testâ elongatè conico-subulatâ, acuminatâ, nitidâ; anfractibus subplanulatis, plico-costatis, supernè cingulo tuberculato contractato cinctis; costis subdistantibus albidis, interstitiis striatis fuscis; anfractu ultimo breviusculo, rotundato, albo fasciato; columellâ contortâ.* Axis 11 lin.

*Hab.* Gulf of Papagayo, west coast of Central America; in twenty-three fathoms, mud.

*Cab.* Belcher.

*TEREBRA LAURINA.* *Ter. testâ elongatè subulatâ, acuminatâ, lævigatâ, politâ, olivaceâ; anfractibus planulatis, plicis tenuibus sinuosis, capillaribus, infrâ evanidis, supernè lineâ impressâ obsoletâ cinctis, ultimo unicolore, lævigato; aperturâ fuscâ; columellâ lævi, subtruncatâ.* Axis 32 lin.

*Hab.* Western Africa; in sandy mud: Rev. W. V. Hennah.

*Cab.* Cuming.

The impressed line is always faint, and sometimes not at all visible. The specimens are nearly of an uniform colour, but a band of somewhat deeper colour traverses the upper portion of each whorl.

*TEREBRA STYLATA.* *Ter. testâ subulatâ, acuminatâ, politâ, olivaceâ; anfractibus subplanulatis, integris, numerosè plicatis, infrâ evanidis, propè suturam albidis maculis fuscis interruptè fasciatis, ultimo lævigato, infernè albo angustè fasciato; aperturâ fuscâ; columellâ lævi, subtruncatâ.* Axis 21 lin.

*Hab.* Japan; Philippine Islands.

*Cab.* Cuming.

*TEREBRA TUBEROSA.* *Ter. testâ turrito-subulatâ, saturatè fulvâ, nitidâ; anfractibus rotundatis, longitrorsum costatis, supernè cingulo numerosè tuberculato; costis brevibus; nodulosis striis decussantibus; columellâ contortâ.* Axis 11 lin.

*Hab.* Ticao, Philippines.

*Cab.* Cuming. Unique.

In this characteristic species the girdle consists of a number of small tubercles, superior in number to the vertical ribs.

**TEREBRA CONSPERSA.** *Ter. testâ turrito-subulatâ, nitidâ, albâ; anfractibus subrotundatis, plico-costatis, supernè lined impressâ, præcipuè interstitiali, cinctis, propè suturam punctis rufis raro conspersis, interstitiis striatis; anfractu ultimo ad basin fulvo.*  
Axis 10 lin.

*Hab.* Catbalonga, island of Samar, Philippines; eight fathoms, sandy mud.

*Cab.* Cuming.

A pretty little species, only known to me through the two specimens in the above collection; and it will readily be distinguished by its sparsely scattered rufous spots and orange base.

**TEREBRA LINGUALIS.** *Ter. testâ turrito-subulatâ, albidâ, flammeis atro-fuscis longitudinalibus ornatâ; anfractibus planulatis, duabus lineis impressis divisis, infrâ suturam tuberculatis; areâ inferiore lævigatâ; anfractu ultimo subrotundato, lævigato, fasciato; aperturâ quadratâ; columellâ contortâ.* Axis 30 lin.

*Hab.* Gulf of Papagayo, Bay of Montejo, west coast of America; ten to seventeen fathoms, sandy mud.

*Cab.* Belcher and Cuming.

The whorls, particularly those of the spire, are divided into three spaces by two girdling lines; the lower area is smooth, but the two others, particularly the most superior, is tubercled. It is a handsome species, from the deep reddish-brown flames with which it is covered.

**TEREBRA LIGATA.** *Ter. testâ elongatè subulatâ, acuminatâ; anfractibus planulatis, transversim striatis, cingulis duobus tuberculatis, cingulo superiore et areâ inferiore maculis quadratis fuscis transversis ornatâ, cingulo inferiore minore albidâ concolore; anfractu ultimo parvo, biserialim maculato.* Axis 15½ lin.

*Hab.* Marquesas; in seven fathoms, sandy mud.

*Cab.* Belcher.

**TEREBRA FUNICULATA.** *Ter. testâ elongatè subulatâ, nitidâ, fulvâ; anfractibus numerosis, planulatis, supernè cingulo lævi lined impressâ diviso, infrâ cingulo minore, areâ inferiore transversim striatâ; anfractu ultimo brevi, medio sulco unico; aperturâ parvâ, concolore; labio interno subcalloso, producto.* Axis 23 lin.

*Hab.* —?

*Cab.* Belcher and Cuming.

**TEREBRA FENESTRATA.** *Ter. testâ elongatè conico-subulatâ, pallidè fulvâ; anfractibus planulatis, supernè cingulo nodulifero, infrâ secundo minore, infernè cancellatis; apice subpapillari; anfractu ultimo quadrato ad basin abruptè contractato; aperturâ parvâ; labio interno subcalloso, producto.* Axis 15 lin.

*Hab.* San Nicholas, island of Zebu, Philippines; sandy mud at low water.

*Cab.* Cuming.

**TEREBRA EBURNEA.** *Ter. testâ obeso-subulatâ, albâ; anfractibus lævigatis, nitidis, supernè lined impressâ, infernè uni- vel biserialim*

*lineis punctatis cinctis; anfractu ultimo quinque seriebus linearum punctarum; aperturâ elongatâ; columellâ lævi, breviusculâ. Axis 16 lin.*

*Hab.* Seychelles.

*Cab.* Belcher. Unique.

**TEREBRA AMANDA.** *Ter. testâ elongatâ conico-subulatâ, nitidâ; anfractibus planulatis, supernè cingulo tuberculato margaritaceo cinctis, infrâ secundo minore concolore, infernè aurantiacis biserialim punctato-lineatis, ultimo brevi; columellâ contortâ. Axis 11 lin.*

*Hab.* Straits of Macassar; in eleven fathoms, coarse sand.

*Cab.* Belcher.

An uncommonly pretty shell, offering an elegant contrast between the row of pearly tubercles and the general orange colour.

**TEREBRA VIOLASCENS.** *Ter. testâ turritâ, cylindraceo-subulatâ, violacâ; anfractibus rotundatis, longitrorsum obliquè plico-costatis, supernè lineâ impressâ obsoletè cinctis; costis subconfertis, interstitiis crebrè striatis; aperturâ parvâ, elongatâ; labio interno producto. Axis 15 lin.*

*Hab.* New Guinea; in seven fathoms, mud. San Nicholas, Zebu, and Mindanao, Philippines; in twenty to thirty fathoms.

*Cab.* Belcher and Cuming.

The Philippine specimens are of a different colour, and disposed to be banded, but they have the appearance of dead shells. The species is very like an American fossil from Alabama, *T. venusta*, Lea.

**TEREBRA ARMILLATA.** *Ter. testâ turrito-subulatâ, acuminatâ, fuscâ; anfractibus planulatis, longitrorsum subdistanter plico-costatis, transversim lineis definitis impressis, supernè cingulo noduloso, ætate valdè notabili; anfractu ultimo subquadrato, ad basin albo fasciato; aperturâ atro-fuscâ; columellâ contortâ. Axis 22 lin.*

*Hab.* Abundant in various localities on the west coast of America between Panama and the Bay of Magdalena in Lower California, in from five to thirteen fathoms; also at the Galapagos, in ten fathoms: chiefly in sandy situations. It was also found imbedded in the fossiliferous cliffs which surround a portion of the Bay of Magdalena.

*Cab.* Belcher and Cuming.

**TEREBRA ASPERA.** *Ter. testâ turrito-subula d, acuminatâ, pallidâ, aurantiacâ vel fuscâ; anfractibus subrotundatis, longitrorsum subconfertè plico-costatis, nodulosis liris transversis decussantibus, supernè cingulo plico-nodulifero sparsim fusco maculato; anfractu ultimo rotundato, ad basin albo fasciato; aperturâ colorem testæ simulante; columellâ plicatâ. Axis 23 lin.*

*Hab.* Panama, Monte Christi, St. Elena, west coast of America; in from six to ten fathoms, sandy mud.

*Cab.* Cuming.

**TEREBRA TUBERCULOSA.** *Ter. testâ turrito-subulatâ, acuminatâ,*

*olivaced; anfractibus planulatis, lævigatis, politis, supernè cingulo tuberculato, areâ inferiore triseriatim tuberculato, seriebus duabus superioribus frequenter subevanidis; anfractu ultimo subquadrato, unicolore, multiseriatim tuberculato; columellâ contortâ. Axis 24 lin.*

*Hab.* Panama, Gulf of Papagayo, and San Blas; in from four to eleven fathoms.

*Cab.* Belcher.

**TEREBRA SPECILLATA.** *Ter. testâ gracile turrito-subulatâ, valde acuminatâ, albâ, rufo sparsim maculatâ et nebulosâ; anfractibus subplanulatis longitrorsum subdistanter tenuè plico-costatis, transversim leviter striatis, supernè cingulo tuberculato, interstitiis tuberculorum præcipuè pictis; anfractu ultimo fasciato; aperturâ parvâ; columellâ subrectâ. Axis 20 lin.*

*Hab.* San Blas; from seven fathoms, sandy mud.

*Cab.* Belcher.

**TEREBRA INTEERTINCTA.** *Ter. testâ turrito-subulatâ, pallidâ vel cærulescente; anfractibus planulatis, politis, duabus vel tribus lineis transversis, supernè cingulo tuberculato, infernè obsolete tuberculo-plicatis, interstitiis tuberculorum fusco maculatis; anfractu ultimo subrotundato, uniseriatim tuberculato, interstitiis nebulosis; aperturâ ovali. Axis 20 lin.*

*Hab.* Gambia; among sandy mud.

*Cab.* Cuming and Saul.

**TEREBRA RADULA.** *Ter. testâ turrito-subulatâ, fulvâ, nitidâ; anfractibus rotundatis, plicis tuberculatis longitudinalibus et transversis cancellatis, propè suturam serie tuberculorum majusculorum; anfractu ultimo ad basin albo angustè fasciato; aperturâ oblongâ, concolore. Axis 19 lin.*

*Hab.* Puerto Portrero, west coast of America; in thirteen fathoms, coral sand.

*Cab.* Cuming. A single specimen.

**TEREBRA BIFRONS.** *Ter. testâ turrito-subulatâ, lævigatâ, fuscâ; anfractibus rotundatis, inferioribus multiseriatim tuberculatis, superioribus longitrorsum biseriatim tuberculo-plicatis; tuberculis parvis approximatis, interstitiis lævibus; aperturâ oblongâ; columellâ rectiusculâ, subtruncatâ. Axis 23 lin.*

*Hab.* Japan; sandy mud: Dr. Siebold.

*Cab.* Cuming. Unique.

**TEREBRA GLAUCA.** *Ter. testâ turrito-subulatâ, acuminatâ, glaucescente; anfractibus rotundatis, eleganter cancellatis, propè suturam cingulo albido tuberculato; anfractu ultimo elongato, pallidè fasciato; aperturâ ovali; columellâ contortâ. Axis 14 lin.*

*Hab.* —?

*Cab.* Cuming. Unique.

**TEREBRA LARVÆFORMIS.** *Ter. testâ subcylindraced, turrito-subulatâ,*

*fusca, nitida; anfractibus brevibus rotundatis, longitrorsum plicostatis, supernè lined impressa contractatis; costis rotundatis vel varicosis, interstitiis leviter striatis; anfractu ultimo breviusculo, pallide fasciato; apertura pallida.* Axis 23 lin.

*Hab.* St. Elena, Monte Christi, west coast of America; in from six to fifteen fathoms, sandy mud.

*Cab.* Cuming.

I have examined a number of specimens of this shell, all of which I refer to this species, and find them vary much in the general and relative proportion of their outline and width of whorls.

**TEREBRA ELATA.** *Ter. testâ subcylindrâ, elongatè turrito-subulatâ, pallide fulvâ; anfractibus ferè planulatis, longitrorsum plicatis, supernè lined impressâ cinctis; plicis approximatis, interstitiis striatis, anfractu ultimo ad basin et propè suturam fusco; apertura elongatâ.* Axis 12 lin.

*Hab.* Bay of Montijo, west coast of America; in fifteen fathoms, coarse sand.

*Cab.* Cuming.

**TEREBRA TEXTILIS.** *Ter. testâ turrito-subulatâ, pallide luteâ; anfractibus ferè planulatis, longitrorsum plicatis, supernè lined punctato-impressâ cinctis, serie tuberculorum deinde excisâ albidâ; plicis approximatis, interstitiis striatis; anfractu ultimo parvo, unicolore; columellâ plicatâ, labio interno producto.* Axis  $11\frac{1}{2}$  lin.

*Hab.* Sorsogon, Bay of Manila, Philippines; Straits of Macassar; in from six to thirteen fathoms, sand and coarse gravel.

*Cab.* Cuming and Belcher.

This Asiatic species very closely resembles the American just described, and furnishes another of those instances of affinity, whilst still retaining unquestionable distinctness, which occur so frequently in the shells of the tropics of the two hemispheres; and thus whilst both are enriched by similar forms, these present themselves under slight but constant differences.

**TEREBRA PICTA.** *Ter. testâ subcylindrâ, turrito-subulatâ, nitidâ, pallide aurantiacâ, atro-fusco longitrorsum maculatâ vel nebulosâ; anfractibus rotundatis, supernè cingulo tuberculato, infrâ plicostatis, interstitiis striatis; anfractu ultimo fasciato; apertura parvâ, atro-fusâ; columellâ subrectâ.* Axis 15 lin.

*Hab.* San Nicholas, island of Zebu, Philippines.

*Cab.* Cuming.

**TEREBRA CASTA.** *Ter. testâ turrito-subulatâ, albescente, lævigatâ, politâ; anfractibus integris, planulatis, supernè plicatis et lacteo fasciatis, infrâ lævigatis, strigis longitudinalibus pallide fuscis nebulosis; anfractu ultimo subelongato, lacteo fasciato; columellâ brevi, subrectâ.* Axis 13 lin.

*Hab.* Ilo-ilo, island of Panay, Philippines, at low water.

*Cab.* Cuming.

**TEREBRA INCONSTANS.** *Ter. testâ obeso-subulatâ, acuminatâ, lividâ*



*vel pallidâ, politâ; anfractibus integris, subrotundatis, longitrorsum plicatis, interstitiis lævigatis; infra suturam et ad basin anfractûs ultimi pallidè fasciatâ; aperturâ effusâ; columellâ truncatâ, subcallosâ. Axis 16 lin.*

*Hab.* Sandwich Islands.

*Cab.* Cuming.

This species has much of the general character of *T. anomala*, but the whorls are constantly entire, and the shells are more acuminate and obese.

**TEREBRA PENICILLATA.** *Ter. testâ turritâ, obeso-subulatâ, lævigatâ, politâ, albâ lineis undatis rufis longitrorsum dispositis; anfractibus integris, ultimo elongato, efasciato; spirâ obsoletè plicatâ; aperturâ elongatâ; columellâ lævi. Axis 17 lin.*

*Hab.* Seychelles.

*Cab.* Belcher and Cuming.

**TEREBRA VENOSA.** *Ter. testâ subcylindraceo-subulatâ, lævigatâ, politâ; anfractibus integris, subplanulatis, supernè albo, infrâ purpureo cinctis, strigis rufis longitudinalibus flexuosis; spirâ plicatâ, anfractu ultimo subrotundato, rariùs transversim fasciato vel lineato; aperturâ elongatâ, albâ. Axis 16 lin.*

*Hab.* —?

*Cab.* Cuming.

The only species in this now extensive genus where the fasciation of the last whorl is not to be relied on as a character.

These two species have been united by M. Kiener with *T. lanceata*, but I cannot help regarding them as most unquestionably distinct.

**TEREBRA LUCTUOSA.** *Ter. testâ gracilè acuminatâ, lævigatâ, politâ, atro-fusâ, rariùs castaneâ vel olivaceâ; anfractibus subplanulatis, integris, supernè plicis parvis undatis, infrâ evanidis, ultimo elongato, concolore; columellâ lævi, breviusculâ. Axis 17 lin.*

*Hab.* Gulf of Nicoya; Puerto Portrero, west coast of America; in twelve fathoms, coral sand.

*Cab.* Cuming and Belcher.

**TEREBRA CUSPIDATA.** *Ter. testâ gracilè et elongatè subulatâ, valdè acuminatâ, lævigatâ, politâ, nitidâ; anfractibus planulatis, integris, supernè plicatis, infrâ evanidis, pallidis cæruleo angustè fasciatis; anfractu ultimo lævigato, subdiaphano, ad basin fasciâ rufâ ornato. Axis 13 lin.*

*Hab.* Cape Coast, Africa: Humphrey.

*Cab.* Cuming.

**TEREBRA MICANS.** *Ter. testâ conico-subulatâ, acuminatâ, semiopacâ, pallidè fulvâ, nitidâ; anfractibus planulatis, integris, longitrorsum plicis capillaribus, supernè cæruleo et ad basin anfractûs ultimi fusco fasciatis; aperturâ infernè effusâ; columellâ truncatâ. Axis 13 lin.*

*Hab.* —?

Cab. Cuming.

The specific name I find in use as a cabinet name, but I am ignorant who is the originator.

**TEREBRA LEPIDA.** *Ter. testâ obeso- vel rariùs subcylindraceo-subulatâ, acuminatâ, lævigatâ, politâ, albidd vel pallidè fulvâ; anfractibus planulatis, integris, plicis longitudinalibus acutis, interstitiis lævigatis, supernè maculis rufis cinctis; anfractu ultimo subcylindraceo, pallidè fasciato.* Axis 10 lin.

*Hab.* Guinea; on the sands: Humphrey.

Cab. Cuming.

**TEREBRA OBESA.** *Ter. testâ obeso-subulatâ, lævigatâ, albidd, maculis fuscis longitudinalibus pallidè ornatâ; anfractibus paucis, subrotundatis, integris, ultimo biserialim maculato; spirâ obsolete plicatâ; aperturâ oblongâ; columellâ truncatâ.* Axis 6 lin.

*Hab.* —?

Cab. Cuming. Unique.

In this singular little shell the last whorl occupies nearly one half of the entire length.

**TEREBRA NASSOIDES.** *Ter. testâ obeso-subulatâ, lævigatâ, nitidd, anfractibus planulatis, integris, supernè albo, mediò fusco cinctis, ultimo unicolore; aperturâ infernè effusâ.* Axis 6 lin.

*Hab.* —?

Cab. Cuming.

**TEREBRA RUSTICA.** *Ter. testâ obeso-subulatâ, acuminatâ, fuscâ, nitidd, striis transversis scabrâ; anfractibus subrotundatis, longitrorsum plico-costatis, supernè infra suturam luteis; plicis subdistantibus, ferè continuis; anfractu ultimo elongato, concolore; aperturâ elongatâ; columellâ lævi, subrectâ.* Axis 8 lin.

*Hab.* —?

Cab. Metcalfe.

**TEREBRA TENERA.** *Ter. testâ parvâ, obeso-subulatâ, lævigatâ, nitidd, anfractibus plico-costatis, pallidè fulvis, supernè prope suturam rufo fasciatis, ultimo ad basin rufo; plicis continuis; columellâ contortâ.* Axis 4 lin.

*Hab.* Straits of Malacca, in seventeen fathoms; Ceylon.

Cab. Belcher.

**TEREBRA MERA.** *Ter. testâ subcylindraceo-subulatâ, lævigatâ, nitidd, albidd, vel pallidè rufo latè fasciatâ; anfractibus subplanulatis, supernè plicis parvis numerosis obliquis, infrâ evanidis; aperturâ parvâ, elongatâ; columellâ subtruncatâ.* Axis  $7\frac{1}{2}$  lin.

*Hab.* Straits of Malacca, in seventeen fathoms.

Cab. Belcher.

**TEREBRA PYGMÆA.** *Ter. testâ purpureâ, obeso-subulatâ; anfractibus paucis, subrotundatis, longitrorsum minutè plico-costatis, supernè insigniter fasciâ angustâ atro-purpureâ cinctis, ultimo propè*

*basin fasciato; aperturâ parvâ, fuscâ; labio interno subproducto.*  
Axis 3 lin.

*Hab.* Straits of Malacca, in seventeen fathoms.  
*Cab.* Belcher.

Synopsis of the known species of *Terebra*, by Mr. Hinds.

The genus *Terebra*, as at present received, contained in the time of Linnæus several species; which were then referred to *Buccinum*. Lamarck enumerates twenty-four species; seven were described in the Tankerville Catalogue by Mr. Sowerby in 1825; twenty-one by Mr. Gray in the Zoological Proceedings for 1834; and a few additional are scattered through other publications. The list of M. Deshayes assigns the amount of recent species as forty-four, and of fossil as sixteen, at the period of its formation. M. Kiener's Monograph contains thirty-five recent species. In the following synopsis considerable care has been taken to compare the previously described species with each other, so as to correct their synonymy, and also in collecting their different habitats; for on this point our information was most deficient, since the native country of several of the Lamarckian species was unknown or only vaguely mentioned, and in those described in the Zoological Proceedings for 1834, the locality of a single species is alone given. As the authority for a habitat always increases its value, it is here inserted; and to those for which I am myself responsible, my initial is attached.

The statistical details stand thus:—Species previously described, recent 58, fossil 24; now first described 50—total 132; both recent and fossil 8.

#### TEREBRA, Bruguière.

*Terebra*, Bruguière (*nec* Adanson); *Acus*, Humphrey; *Subula*, Schumacher, Blainville; *Loxonema*, Phillips.

#### RECENT.

1. ‡TEREBRA MACULATA<sup>1</sup>, Linnæus (sp.).

*Buccinum maculatum*, Linn., Gmelin, No. 130.

*Terebra maculata*, Lamarck, Hist. des Animaux sans Vert. vol. vii. p. 283.

*Subula maculata*, Schumacher, Nouv. Syst., p. 233; Blainville, Malacologie, p. 405. t. 16. f. 2.

*Hab.* All the groups of islands in the North and South Pacific; Indian Seas, as far as the Seychelles: H. Fossil—shores of the Red Sea: Burton. (vide specimen in museo Belcher.)

<sup>1</sup> The sign attached to this and other species is meant to represent that they are found both in a recent and fossil state. In practice I have found it highly convenient to employ certain signs, and having shown them to some who have regarded them as useful, they are here introduced. I have expressed a recent shell by the sign ‡; a fossil shell, †; and one found in both conditions, ‡†. And I have found a great advantage in these signs, that they are easily converted.

2. *TEREBRA STRIGATA*, Sowerby, Tank. Cat. p. 25.  
*T. elongata*, Wood, Index Suppl.  
*T. flammea*, Lesson, Ill. de Zool. t. 48.  
*T. zebra*, Kiener, Iconographie, p. 5. t. 3. f. 5.  
*Hab.* Panama, very abundant: H.  
The Indian locality assigned in Wood's 'Index' to this species is undoubtedly incorrect. (v. s. in m. Belcher.)
3. *TEREBRA FLAMMEA*, Lamarck, l. c. vol. vii. p. 284.  
*Hab.* Indian Seas: Kiener. (v. s. in m. Cuming.)
4. *TEREBRA SUCCINEA*, sp. n., vide antè.
5. *TEREBRA ROBUSTA*, sp. n., vide antè.
6. *TEREBRA ORNATA*, Gray, Proc. Zool. Soc. 1834, p. 62.  
*Hab.* Gallapagos Islands; five to seven fathoms, coral sand: Cuming. Panama; seven fathoms, mud: H. (v. s. in m. Belcher.)
7. †*TEREBRA CRENULATA*, Linnæus (sp.).  
*Buccinum crenulatum*, Linn., Gmelin, No. 132.  
*B. candidum*, Born, Mus. p. 263. t. 10. f. 8.  
*Terebra maculata*, Perry, t. 16. f. 2.  
*Hab.* Marquesas Islands: H. Tahiti; Amboina. Fossil—shores of the Red Sea: Burton. (v. s. in m. Belcher.)
8. *TEREBRA DIMIDIATA*, Linnæus (sp.).  
*Buccinum dimidiatum*, Linn., Gmelin, No. 138.  
*B. ferrugineum*, Born, Mus. p. 263. t. 10. f. 7.  
*Terebra carnea*, Perry, t. 16. f. 1.  
*Hab.* Tahiti; Amboina: H. (v. s. in m. Belcher.)  
I am scarcely satisfied that Born's shell is *T. dimidiata*, though so considered by Dillwyn. The latter was known to Born, who considered it as distinct, and they are so mentioned.
9. *TEREBRA CONSORS*, sp. n., vide antè.
10. *TEREBRA ARGUS*.  
*T. nebulosa*, Kiener, Iconographie, p. 23. t. 10. f. 22.  
*Hab.* Tahiti, Society Islands: Cuming. Nukuhiva, Marquesas: H. (v. s. in m. Belcher.)  
The name is preoccupied in a species described by Mr. Sowerby.
11. *TEREBRA MUSCARIA*, Lamarck, l. c. vol. vii. p. 285.  
*Hab.* Tahiti; Feejee Islands: H. (v. s. in m. Belcher.)  
The figure in the 'Encyclop. Méthod.' referred to *T. subulata*, represents this shell, an error which was subsequently corrected by Lamarck. An analogous mistake has been committed in Sowerby's 'Genera of Shells,' where *T. subulata* is represented with a reference at the foot to *T. muscaria*.
12. *TEREBRA TIGRINA*, Gmelin (sp.).  
*Buccinum tigrinum* (bis), Gmelin, No. 135.  
*B. felinum*, Dillwyn, vol. ii.  
*Terebra felina*, Sowerby, Tank. Cat. p. 76.  
*Hab.* —? (v. s. in m. Cuming.)

13. †TEREBRA DUPLICATA, Linnæus (sp.).  
*Buccinum duplicatum*, Linn., Gmelin, No. 136.  
*Terebra Lamarckii*, Kiener, p. 30. t. 9. f. 19.  
*Hab.* Zanzibar; Singapore. Majambo Bay, Madagascar; H. Fossil—shores of the Red Sea: Burton. (v. s. in m. Cuming.)  
*T. Lamarckii* seems to me only a pretty and characteristic variety.
14. TEREBRA DUSSUMIERII, Kiener, l. c. p. 31. t. 8. f. 17.  
*Hab.* Haynan, China: Humphrey. (v. s. in m. Cuming.)
15. †TEREBRA SUBULATA, Linnæus (sp.).  
*Buccinum subulatum*, Linn., Gmelin, No. 131.  
*Terebra fusca*, Perry, t. 16. f. 3.  
*Hab.* Tahiti, Society Islands; Bow Island, pale var.; Moluccas: H. Fossil—shores of the Red Sea: Burton. (v. s. in m. Belcher.)
16. TEREBRA OCULATA, Lamarck, l. c. vol. vii. p. 286.  
*Hab.* Bow Island; Society Islands; Amboina: H.
17. TEREBRA SPECTABILIS, sp. n., vide antè.
18. TEREBRA GEMMULATA, Kiener, l. c. p. 15. t. 5. f. 11.  
*Hab.* —? (v. s. in m. Cuming: a single specimen.)
19. TEREBRA COPULA, sp. n., vide antè.
20. TEREBRA FATUA, sp. n., vide antè.
21. TEREBRA ALBIDA, Gray, l. c. p. 63.  
*Hab.* New South Wales, on the sands: Humphrey. (v. s. in m. Gray.)
22. TEREBRA CLORATA, Lamarck, l. c. vol. vii. p. 288.  
*T. Knorrii*, Gray, l. c. p. 59.  
*Hab.* Seychelles: Dufo. (v. s. in m. Cuming.)
23. TEREBRA RAPHANULA, Lamarck, l. c. vol. vii. p. 288.  
*Hab.* Amboina: H. (v. s. in m. Belcher.)
24. TEREBRA CERITHINA, Lamarck, l. c. vol. vii. p. 288.  
*Hab.* Philippine Islands: Cuming. Bow Island; Society Islands; Feejee Islands: H. (v. s. in m. Belcher.)
25. TEREBRA CÆRULESCENS, Lamarck, l. c. vol. vii. p. 288.  
*Hab.* New Holland: Lamarck. Society Islands; Feejee Islands: H. (v. s. in m. Cuming.)
26. TEREBRA NIMBOSA, sp. n., vide antè.
27. TEREBRA SENEGALENSIS, Lamarck, l. c. vol. vii. p. 287.  
*T. striatula*, Lamarck, l. c. vol. vii. p. 288.  
*Hab.* Gambia and other localities on the west coast of Africa. (v. s. in m. Belcher.)  
 Kiener's figure at t. 9. f. 18. represents *T. strigilata*. It is the *faval* of Adanson.
28. TEREBRA FUSCO-MACULATA, Sowerby, Tank. Cat. p. 23.  
*Hab.* Senegal: Sowerby.  
 I cannot identify this shell, but there is much probability that

it may be one of the varieties of *T. senegalensis*, Lamarck; a shell not so well known twenty years since as at present.

29. *TEREBRA CINGULA*, Kiener, l. c. p. 28. t. 8. f. 16.

*Hab.* —? (v. s. in m. Cuming.)

30. *TEREBRA LAURINA*, sp. n., vide antè.

31. *TEREBRA STYLATA*, sp. n., vide antè.

32. *TEREBRA CASTANEA*, Kiener, l. c. p. 19. t. 7. f. 14.

*Hab.* Mauritius: Kiener. Guinea: Humphrey. (v. s. in m. Cuming.)

I feel tolerably certain that I have referred the right shell to Kiener's description and figure. With the latter it agrees sufficiently well, but the whorls are decidedly divided. His description and figures widely differ.

33. †*TEREBRA PERTUSA*, Born (sp.).

*Buccinum pertusum*, Born, Mus. p. 267. t. 10. f. 13.

*Terebra undata*, DeFrance, Dict. des Scien. Nat.

*Hab.* —? Fossil—Bordeaux: Basterot. South of Europe: Bronn. (v. s. in m. Cuming.)

The shells represented in Kiener's 'Iconographie' by t. 11. f. 24 b. and 24 c. as varieties, are respectively *T. affinis*, Gray, and *T. undulata*, Gray.

34. *TEREBRA NUBECULATA*, Sowerby, Tank. Cat. p. 25.

*Hab.* —?

This shell I am unable to identify.

35. *TEREBRA NEBULOSA*, Sowerby, l. c. p. 25.

*Hab.* —? (v. s. in m. Cuming.)

36. *TEREBRA ALVEOLATA*, sp. n., vide antè.

37. *TEREBRA SPECILLATA*, sp. n., vide antè.

38. *TEREBRA CONSPERSA*, sp. n., vide antè.

39. *TEREBRA VARICOSA*, sp. n., vide antè.

40. *TEREBRA FRIGATA*.

*T. gracilis*, Gray, l. c. p. 61.

*Hab.* Africa: Gray. Gallapagos Islands; in six fathoms, coral sand: Cuming. (v. s. in m. Gray.)

A fossil species has priority of name.

41. *TEREBRA PLUMBEA*, Quoy, Voy. de l'Astrolabe, p. 470. t. 36. f. 29, 30.

*Hab.* Moluccas: Quoy and Gaimard. Cagayan, island of Misamis, Philippines: Cuming. (v. s. in m. Cuming.)

42. *TEREBRA NITIDA*, sp. n., vide antè.

43. *TEREBRA HASTATA*, Gmelin (sp.).

*Buccinum hastatum*, Gmelin.

*Terebra costata*, Menke, Syn. Mus., p. 84.

*Hab.* —? (v. s. in m. Cuming.)

44. *TEREBRA CASTA*, sp. n., vide antè.

45. *TEREBRA RUDIS*, Gray, l. c. p. 60.  
*Terebra Petitii*, Kiener, l. c. p. 37. t. 13. f. 32.  
*Hab.* Shores of New York and Philadelphia: Kiener. (v. s. in m. Gray.)
46. *TEREBRA PLICATA*, Gray, l. c. p. 61.  
*Hab.* Guayaquil; in twelve fathoms, sandy mud: Cuming.
47. *TEREBRA EBURNEA*, sp. n., vide antè.
48. *TEREBRA AMANDA*, sp. n., vide antè.
49. *TEREBRA TESSELLATA*, Gray, l. c. p. 61.  
*Hab.* —? (v. s. in m. Britannico.)
50. *TEREBRA LIGATA*, sp. n., vide antè.
51. *TEREBRA LINGUALIS*, sp. n., vide antè.
52. *TEREBRA CORRUGATA*, Lamarck, l. c. vol. vii. p. 287.  
*T. punctata*, Gray, l. c. p. 61.  
*Hab.* —? (v. s. in m. Gray.)
53. *TEREBRA FUNICULATA*, sp. n., vide antè.
54. *TEREBRA TRICOLOR*, Sowerby, Tank. Cat. p. 24.  
*T. taniolata*, Quoy, Voy. de l'Astrolabe, p. 466. t. 36. f. 25, 26.  
*Hab.* Tongatabu: Quoy and Gaimard. Island of St. Thomas: Sowerby. (v. s. in m. Cuming.)  
 There is most probably some error in one of these localities.
55. *TEREBRA MONILIS*, Quoy, Voy. de l'Astrolabe, p. 467. t. 36. f. 21, 22.  
*Hab.* —? (v. s. in m. Cuming.)
56. *TEREBRA CINGULIFERA*, Lamarck, l. c. vol. vii. p. 289.  
*T. punctulata*, Sowerby, Tank. Cat. p. 24.  
*T. punctatostriata*, Gray, l. c. p. 61.  
*Hab.* New Holland: Kiener. Annaa, South Pacific; Ilo-ilo, island of Panay, and island of Burias, Philippines: Cuming. Tahiti: H. (v. s. in m. Gray.)
57. *TEREBRA BABYLONIA*, Lamarck, l. c. vol. vii. p. 287.  
*T. striata*, Gray, l. c. p. 60.  
*Hab.* Haynan, China: Schröter. Bow Island; Tahiti; Feejee Islands: H. (v. s. in m. Gray.)
58. *TEREBRA STRAMINEA*, Gray, l. c. p. 62.  
*Hab.* Haynan, China; Tranquebar: Schröter.
59. *TEREBRA PRETIOSA*, Reeve, Proc. Zool. Soc. 1842, p. 200.  
*Hab.* China. (v. s. in m. Cuming.)  
 Two specimens only of this fine shell appear to be known.
60. † *TEREBRA COMMACULATA*, Gmelin (sp.).  
*Buccinum strigilatum*, Gmelin (nec Linn.).  
*B. commaculatum*, Gmelin, No. 143.  
*Terebra myuros*, Lamarck, l. c. vol. vii. p. 289.  
*T. scabrella*, Lamarck, l. c. vol. vii. p. 289.

*Hab.* New Guinea : H. Fossil—shores of the Red Sea : Burton.  
(v. s. in m. Belcher.)

An impression seems to exist that this may be *Buccinum murinum*, Linnaeus, but the brief description does not appear to me to favour this view.

61. *TEREBRA TRISERIATA*, Gray, l. c. p. 61.

*Hab.* Island of Ticao, Philippines ; six fathoms, sand : Cuming.  
China Sea ; twenty-two fathoms : H. (v. s. in m. Gray.)

62. *TEREBRA LÆVIGATA*, Gray, l. c. p. 61.

*Hab.* Ceylon : H.

63. *TEREBRA LÆVIS*, Gray, l. c. p. 61.

*Hab.* — ? (v. s. in m. Gray.)

At first I was somewhat struck with the peculiar appearance of the specimen, but after repeated examination and comparison I feel satisfied that it is the worn apex of either *T. muscaria* or *T. oculata*, which are in this state much alike.

64. *TEREBRA COLUMELLARIS*, sp. n., vide antè.

65. *TEREBRA UNDULATA*, Gray, l. c. p. 60.

*T. pertusa*, Kiener, Iconographie, var. t. 11. f. 24 c.

*Hab.* Bow Island ; New Guinea ; Straits of Malacca : H. (v. s. in m. Gray.)

66. *TEREBRA AFFINIS*, Gray, l. c. p. 60.

*T. striata*, Quoy, Voy. de l'Astrolabe, p. 468. t. 36. f. 23, 24.

*Hab.* Feejee Islands ; Seychelles : H. (v. s. in m. Gray.)

This species varies much in the size of its shells. The robust specimens are M. Quoy's species ; his name, though having a short priority, is previously occupied.

67. *TEREBRA VARIEGATA*, Gray, l. c. p. 61.

*T. africana*, Gray, Griffith's Cuvier, t. 23. f. 5.

*Hab.* Guaymas, Gulf of California ; ten to twelve fathoms, sandy mud : Cuming. (v. s. in m. Gray.)

I can scarcely discover the priority of these names, but the second is obviously objectionable.

68. *TEREBRA INTERTINCTA*, sp. n., vide antè.

69. *TEREBRA ARMILLATA*, sp. n., vide antè.

70. *TEREBRA ASPERA*, sp. n., vide antè.

71. *TEREBRA RADULA*, sp. n., vide antè.

72. *TEREBRA BIFRONS*, sp. n., vide antè.

73. *TEREBRA GLAUCA*, sp. n., vide antè.

74. *TEREBRA BICINCTA*, sp. n., vide antè.

75. *TEREBRA TUBERCULOSA*, sp. n., vide antè.

76. *TEREBRA LARVÆFORMIS*, sp. n., vide antè.

77. *TEREBRA FENESTRATA*, sp. n., vide antè.

78. *TEREBRA PICTA*, sp. n., vide antè.



79. *TEREBRA VIOLASCENS*, sp. n., vide antè.
80. *TEREBRA ALBA*, Gray, l. c. p. 60.  
*Hab.* —? (v. s. in m. Gray.)
81. *TEREBRA FLAVA*, Gray, l. c. p. 60.  
*Hab.* —? (v. s. in m. Gray.)
82. *TEREBRA ELATA*, sp. n., vide antè.
83. *TEREBRA TEXTILIS*, sp. n., vide antè.
84. *TEREBRA CANCELLATA*, Quoy, Voy. de l'Astrolabe, p. 471. t. 36. f. 27, 28.  
*Hab.* Moluccas : Quoy and Gaimard. (v. s. in m. Cuming.)
85. *TEREBRA CANCELLATA*, Gray, l. c. p. 62.  
*Hab.* —?  
 This species I have not seen. The name, being preoccupied, requires to be changed.
86. *TEREBRA PULCHRA*, sp. n., vide antè.
87. *TEREBRA EBURNEA*, sp. n., vide antè.
88. *TEREBRA LANCEATA*, Gmelin (sp.).  
*Buccinum lanceatum*, Gmelin, No. 137.  
*Hab.* Tahiti; Mauritius : Cuming. Amboina : H. (v. s. in m. Belcher.)
89. *TEREBRA PENICILLATA*, sp. n., vide antè.
90. *TEREBRA VENOSA*, sp. n., vide antè.
91. *TEREBRA INCONSTANS*, sp. n., vide antè.
92. *TEREBRA ANOMALA*, Gray, l. c. p. 62.  
*Hab.* Singapore; in seven fathoms : Cuming. (v. s. in m. Gray.)
93. † *TEREBRA CINEREA*, Born (sp.).  
*Buccinum cinereum*, Born, Mus. p. 267. t. 10. f. 11, 12.  
*Terebra aciculina*, Lamarck, l. c. vol. vii. p. 290.  
*Hab.* Manila, on the sand : Cuming. Fossil—Bordeaux : Basterot. (v. s. in m. Cuming.)
94. *TEREBRA STRIGILATA*, Linnæus (sp.).  
*Buccinum strigilatum*, Linn., Syst. Nat. no. 484.  
*Hab.* New Guinea; Straits of Macassar : H. Philippine Islands : Cuming. (v. s. in m. Belcher.)  
 At p. 29 of the 'Iconographie' M. Kiener describes this shell, and t. 9. f. 19. represents it; but the reference at the foot is to *T. striatula*, Lamarck.
95. *TEREBRA LUCTUOSA*, sp. n., vide antè.
96. *TEREBRA CUSPIDATA*, sp. n., vide antè.
97. *TEREBRA MICANS*, sp. n., vide antè.
98. *TEREBRA LEPIDA*, sp. n., vide antè.
99. *TEREBRA ALBULA*, Menke, Moll. Nov. Holland. p. 30.  
*Hab.* West coast of New Holland : Menke.

100. *TEREBRA OBESA*, sp. n., vide antè.
101. *TEREBRA NASSOIDES*, sp. n., vide antè.
102. *TEREBRA TUBEROSA*, sp. n., vide antè.
103. *TEREBRA RUSTICA*, sp. n., vide antè.
104. *TEREBRA ACICULATA*, Lamarck (sp.).  
*Buccinum aciculatum*, Lamarck, l. c. vol. vii. p. 274.  
*Hab.* Acapulco; Sonsonati; Xipixapi: Cuming. (v. s. in m. Cuming.)
105. *TEREBRA COSENTINI*, Philippi, p. 227. t. 11. f. 29.  
*Hab.* Naples: Philippi. (v. s. in m. Cuming.)
106. *TEREBRA TENERA*, sp. n., vide antè.
107. *TEREBRA MERA*, sp. n., vide antè.
108. *TEREBRA PYGMÆA*, sp. n., vide antè.

## FOSSIL.

109. *TEREBRA PLICATULA*, Brocchi (sp.).  
*Buccinum plicatum*, Brocchi, Conchiologia.  
*Hab.* Paris: Deshayes. Bordeaux; Siebenbürgen: Bronn.
110. *TEREBRA GRANULATA*, Phillips, Geol. York. vol. i. t. 7. f. 16.  
*Hab.* Scarborough: Phillips.
111. *TEREBRA MELANOIDES*, Phillips, l. c. vol. i. t. 4. f. 13.  
*Hab.* Yorkshire: Phillips.
112. *TEREBRA VETUSTA*, Phillips, l. c. vol. i. t. 9. f. 25.  
*Hab.* Yorkshire: Phillips.
113. *TEREBRA VITTATA*, Phillips, l. c. vol. i. t. vii. f. 15.  
*Hab.* Scarborough: Phillips.
114. *TEREBRA FUSCATA*, Brocchi (sp.).  
*Buccinum fuscum*, Brocchi, Conchiol. vol. ii. p. 344.  
*Terebra plicaria*, Basterot, Mém. d'Hist. Naturelle, 1825.  
*T. striolata*, Risso, Histoire de Nice, f. 74.  
*Hab.* Bordeaux: Basterot. Nice: Risso.
115. *TEREBRA STRIATA*, Basterot, Mémoire, 1825.  
*Hab.* Bordeaux: Basterot.

Four different shells have received this specific name, of which the above claims the priority. It is not always easy so to adjust and apply the nomenclature, that a designation once used should not be adopted again; but in cases like the present it is difficult to believe that a little reference would not have avoided the frequent repetition of the same name, whereby not only some confusion would have been avoided, but those who come after would have been saved the unpleasant and ungracious duty of substituting new names.

116. *TEREBRA CONSTRICTA*, Sowerby, Min. Conch. vol. iii. p. 218.  
*Hab.* Yorkshire: Phillips.
117. *TEREBRA LINEATA*, Sowerby, Min. Conch. vol. iii. p. 218.  
*Hab.* England: Sowerby.

118. *TEREBRA PORTLANDICA*, Sowerby, Geol. Trans. 2nd Ser. vol. iv. t. 23. f. 6.  
*Hab.* Portland.
119. *TEREBRA HEUNAHIANA*, Sowerby, Geol. Trans. 2nd Ser. vol. v. t. 57. f. 22.  
*Loronema* —, Phillips.  
*Hab.* Plymouth.
120. *TEREBRA NEXILIS*, Sowerby, l. c.  
*Melania arcuata*.  
*Hab.* — ?
121. *TEREBRA SINUOSA*, Sowerby, Sil. Syst.  
*Hab.* — ?
122. *TEREBRA STRIATA*, Lonsdale, Geol. Tr. 2nd Ser. vol. iii. p. 275.  
*Melania* —, Sowerby, Min. Conch.  
*Hab.* England.  
The specific name is preoccupied.
123. *TEREBRA HEDDINGTONENSIS*, Lonsdale, l. c. 2nd Ser.  
*Melania* —, Sowerby, Min. Conch.  
*Hab.* Weymouth.
124. *TEREBRA GRACILIS*, Lea, Contr. to Geology, p. 166. t. 5. f. 171.  
*Hab.* Alabama : Lea.  
See No. 40.
125. *TEREBRA COSTATA*, Lea, l. c. p. 166. t. 5. f. 172.  
*Hab.* Alabama : Lea.
126. *TEREBRA VENUSTA*, Lea, l. c. p. 167. t. 5. f. 173.  
*Hab.* Alabama : Lea.
127. *TEREBRA POLYGYRA*, Conrad, 1834.  
*Hab.* United States.
128. *TEREBRA SIMPLEX*, Conrad.  
*Hab.* United States.
129. *TEREBRA INVERSA*, Nyst, Coq. Foss. d'Anvers, p. 34. t. 5. f. 49.  
*Hab.* Antwerp : Nyst.  
Three specimens only, in an indifferent state, of this singular little shell were known to M. Nyst.
130. *TEREBRA VULCANI*, Brongniart, Mém. du Vicentin, p. 67.  
*Muricites costatus*, Schlotheim, Petrefactenkunde, p. 146.  
*Hab.* South of France.  
Schlotheim's shell has I believe the priority, and by several years, over No. 126.
131. *TEREBRA CANALIS*, S. Wood, Ann. Nat. Hist. vol. ix. p. 540.  
*Hab.* Gedgrave, England ; coral crag : S. Wood.
132. *TEREBRA HETEROSTROPHA*, S. Wood, Ann. Nat. Hist. vol. ix. p. 540.  
*Hab.* Gedgrave and Sutton, England ; red and coral crag : S. Wood.  
This is not unlikely to be *T. inversa*, Nyst. Both species are unaccompanied by descriptions.

## Mihi ignota.

133. TEREBRA SANDWIZENSIS, — ?

## Excludendæ.

134. TEREBRA VITTATA.

*Buccinum vittatum*, Linnaeus.*Eburna monilis*, Schumacher.*Terebra buccinoidea*, Blainville.*Bullia vittata*, Gray.*Leiodomus vittata*, Swainson.

135. TEREBRA GRANULOSA, Lamarck.

136. †TEREBRA SCALARINA, Lamarck.

*Buccinum scalarinum*, Sowerby.*Fusus scalarinus*, Deshayes.

137. TEREBRA LINEOLATA, Sowerby, Tank. Cat.

*Buccinum lineolatum*, Wood, Index, Suppl.*B. Bellangeri*, Kiener.

138. TEREBRA TAHITENSIS, Gray, Proceed. Zool. Soc. 1834, p. 63.

*Buccinum tahitense*, Gmelin.*B. australe*, Sowerby.

139. TEREBRA POLITA, Gray, Proceed. Zool. Soc. 1834, p. 63.

*Buccinum politum*, Lamarck.

There still remain to notice the following species, which were referred by the old authors to that section of *Buccinum* which is now regarded as synonymous with *Terebra*, but which there is much difficulty and doubt in referring to any shells at the present time in our collections:—*Buccinum murinum*, Linn.; *B. acus*, Chemnitz; *B. hecticum*, Gmelin; *B. bifasciatum*, Petiver; *B. concinnum*, Gualtier; *B. succinctum*, Chemnitz; *B. geminum*, Linn.; *B. proximatum*, Linn.; *B. monile*, Linn.; *B. sinuatum*, Linn.; and *B. phallus*, Chemnitz, is since known as *Pleurotoma buccinoides*.

“Descriptions of new species of Shells figured in the ‘Conchologia Iconica,’” by Mr. Lovell Reeve.

## Genus CONUS.

CONUS DESHAYESII. *Con. testâ cylindraceo-ovatâ, tenuiculd, inflatâ, pallidè olivaceo-fulvâ, profusè rubido-puncticulatâ, maculis albis grandibus, perpaucis, sparsim et irregulariter nebulosâ; spirâ depresso-planâ, apice mucronato; aperturâ dehiscente, fauce, quasi politâ, nitente.*

Conch. Icon., *Conus*, pl. 5. f. 28; *Conus cervus*, Sowerby, Conch. Illus., f. 94.

*Hab.* Swan River.

Only a few specimens of this very characteristic species, which may be readily recognised by its peculiar buff-tinted colour and light inflated growth, are at present known. It has been supposed hitherto to be the *Conus cervus*, but having lately examined, in the collection of M. Delessert, the identical shell described under that title by Lamarck, with the description of that illustrious author attached to it

in his own handwriting, I am enabled to rectify an error which has unfortunately gained considerable circulation.

By the title now substituted for *cervus* in reference to the species under consideration, I wish to honour my kind and amiable friend M. Deshayes, now zealously occupied in completing the conchological portion of the new edition of Lamarck's 'Histoire des animaux sans vertèbres,' the publication of which has been long anxiously looked for.

**CONUS VIDUA.** *Con. testâ turbinatâ, albâ, fusco subtilissimè reticulatâ, reticulis ruptis, subsparsis; fasciis binis nigerrimo-fuscis, maculis albis sparsis, irregulariter punctatis, cinctâ; spirâ concavo-depressâ, coronatâ, apice subobtusâ.*

Conch. Icon., *Conus*, pl. 8. f. 45.

*Hab.* Island of Capul, Philippines (on the reefs); Cuming.

This curiously mottled Cone presents a very different style of painting from any hitherto described species. Several specimens were collected by Mr. Cuming.

**CONUS PICTUS.** *Con. testâ oblongo-turbinatâ, tenuiculd, subventricosâ, puniceo brunneove et albo alternatim fasciatâ, fasciis interstitiisque fusco alboque identidem tæniatis et variegatis; spirâ convexo-elatâ, ad marginem peculiariter strigatâ, aperturâ subinflatâ.*

Conch. Icon., *Conus*, pl. 18. f. 98.

*Hab.* — ?

The painting of this pretty shell is of very peculiar character, and I know of no other species with which any comparison can well be instituted. The most characteristic of two specimens now before me exhibits three broad pale scarlet bands, the lower being ornamented with two articulated fillets of brown and white, the middle with one only, whilst in the upper band the fillet is altogether wanting. The spaces between the bands are curiously variegated with brown (scarlet-brown), and the base and upper edge of the shell are obliquely streaked with the same colour; the latter part in such a manner as to leave a neat spiral necklace of short streaks upon the surface of the spire. In some specimens the articulated fillets are more confused, though the necklace of short streaks is still clearly defined around the edge of the spire.

**CONUS MAHOGANI.** *Con. testâ elongato-turbinatâ, subcylindraced, basim versus sulcatâ; albâ, spadiceo profusè tinctâ, tæniis frequentibus spadiceo alboque articulatis cinctâ; spirâ valdè elatâ; aperturæ fauce albâ.*

Conch. Icon., *Conus*, pl. 22. f. 126.

*Hab.* Salango, West Columbia (found in sandy mud); Cuming.

This species differs from the *Conus interruptus* in having the spire narrower and much more elevated; it is always more strongly and fully stained with the dark reddish-brown, and the interior of the shell exhibits no indication of any purple.

**CONUS INTERMEDIUS.** *Con. testâ elongato-turbinatâ, subcylindraced,*

*levi, columellâ basim versus subtiliter sulcatâ; puniceo-rosed, maculis grandibus fuscescentibus reticulatis, interruptè bibalteatâ, interstitiis plus minusve pallidè reticulatis; spirâ convexo-elatâ, spiraliter striatâ; aperturâ patente, fauce pallidè violaceâ.*

Conch. Icon., *Conus*, pl. 23. f. 129; *Conus geographus*, var., Broderip; Sowerby, Conch. Illus., f. 33.

*Hab.* Island of Annaa, Pacific Ocean (found on the reefs); Cuming.

I have long suspected this shell to be distinct from the *Conus geographus*; it differs constantly in form, in colour, and in the general distribution of the brown reticulated painting. These differences are unimportant however compared with a character which it has in common with the *Conus tulipa*, namely that of having the lower portion delicately grooved. The base of the *Conus geographus* does not present the slightest indication of this grooving, nor indeed any inequality of surface beyond the ordinary striæ of growth, which pass in the contrary direction. I notice this character in the *Conus intermedius* merely to show that it cannot be a variety of the *Conus geographus*; the grooving must not be regarded as a specific peculiarity, because, as already observed, it is common to the *Conus tulipa*, as well as to another closely allied species, the *Conus obscurus*.

*CONUS ORBITATUS.* *Con. testâ oblongo-turbinatâ, tenuiculâ, transversim liratâ, liris planis, interstitiis striato-pertusis; albidd, ustulato-fusco variegatâ; spirâ acuminatâ, apice elato, acuto.*

Conch. Icon., *Conus*, pl. 27. fig. 156.

*Hab.* —?

I kindly thank M. Deshayes for the use of this interesting little shell, which at first sight I thought to be a young specimen of the *Conus sulcatus*.

*CONUS ELONGATUS.* *Con. testâ elongato-turbinatâ, levi, luteo-olivaceâ, supernè cœruleo-albâ, fasciâ interruptâ subindistinctâ deorsum cingulatâ; spirâ convexâ, cœruleo-albâ, subtilissimè coronatâ, apice rosaceo; basi et aperturâ fauce vividè violaceis.*

Conch. Icon., *Conus*, pl. 27. f. 157.

*Hab.* —?

I adopt the Rev. Mr. Stainforth's manuscript name for this elegant little shell, believing that it may with great propriety be regarded as a new species.

*CONUS IODOSTOMA.* *Con. testâ subelongato-turbinatâ, tenui, leviter inflatâ; albidd, purpureo pallidissimè tinctâ, luteo-fuscescente sparsim et irregulariter punctatâ et maculatâ; spirâ subtilissimè sulcatâ, apice elato, acuto; aperturâ latiusculâ, fauce violaceo-purpureâ.*

Conch. Icon., *Conus*, pl. 28. f. 159.

*Hab.* —?

This shell has been supposed to have some considerable affinity with the *Conus Janus*; it does not however, in my opinion, exhibit any characters in common with that species, and may at once be distinguished by its tenuity, by its spotted peculiarity of painting, and by its violet-stained mouth.

**CONUS INSCRIPTUS.** *Con. testâ turbinatâ, solidiusculâ, lævi, basim versus sulcatâ, sulcis latis, striatis; cæruleo-albidâ, maculis grandibus fuscescentibus, literis Sinensibus simillimis, trifasciatim inscriptâ, interstitiis macularum minorum serie unicâ cingulatis; spirâ mediocri, spiraliter striatâ, fuscescente variegatâ, apice acuto; aperturæ fauce violaceo-carneolatâ.*

Conch. Icon., *Conus*, pl. 29. f. 164; *Conus leo scandens*? Chemnitz, Conch. Cab., vol. x. pl. 140. f. 1300.

*Hab.* —?

This appears to me to be a well-characterized species, and clearly distinct from that variety of the *Conus Proteus* to which it so closely approximates in the style of painting. I much question whether the figure described by Chemnitz under the title of "*Leo scandens*," from an imagined resemblance of the hieroglyphical spots to the common heraldic device of the climbing lion, is not a representation of this shell, and that Lamarck, Pfeiffer, and others have somewhat erred in quoting it as the well-known similarly marked variety of *C. Proteus*.

**CONUS BULBUS.** *Con. testâ subobeso-turbinatâ, solidâ, supernè rotundatâ; albidâ, fusco longitudinaliter strigatâ, strigis irregularibus, obliquè undulatis, supernè et infernè diffusis; spirâ brevi, apice mucronato.*

Var.  $\beta$ . *Testa omninò fusca.*

Conch. Icon., *Conus*, pl. 30. f. 169.

*Hab.* Cabenda, west coast of Africa (found at the depth of five fathoms in soft mud, washed down by the waters of the Congo); Hankey.

Four specimens of this very interesting species were collected at the above-named locality by Lieut. Hankey. It is a very solid shell, having the appearance of a small bulb-root.

**CONUS AFLUSTRE.** *Con. testâ subobeso-turbinatâ, tenui, subinflatâ, lævi, basim versus liratâ; rubido-fusco et cæruleo pallidè et subirregulariter zonatâ, tæniis fusco-articulatis angustis numerosis subtilibus ornatâ; spirâ depresso-convexâ, apice mucronato.*

Conch. Icon., *Conus*, pl. 30. f. 170.

*Hab.* —?

This is another new species, and will be recognised as being very distinct from any hitherto described.

**CONUS METCALFII.** *Con. testâ elongato-ovatâ, per totam superficiem granulosa, granulis subtilibus, seriatim digestis; albidâ, aurantio-fusco irregulariter inquinatâ, balted albidâ angustâ in medio cingulatâ; spirâ subexsertâ, aurantio-fusco maculatâ, apice acuminato.*

Conch. Icon., *Conus*, pl. 36. f. 192.

*Hab.* —?

I have much pleasure in naming this interesting species, at the desire of the Rev. Mr. Stainforth, in honour of William Metcalfe, Esq., a gentleman whose zeal for collecting and identifying the more

minute and less attractive species of shells is highly serviceable to science.

**CONUS VICTORIÆ.** *Con. testâ ovato-turbinatâ, tenui, subinflatâ, transversim striatâ; albidd, cæsiâ longitudinaliter inquinatâ, maculis grandibus, subsolitariis, aurantiis, fusco undulato-virgatis, trifasciatim ornatâ, interstitiis aurantio-fusco subtilissimè reticulatis; spirâ elevato-exsertâ, apice acutissimo; aperturâ latiusculâ, fauce pallidè cæsiâ.*

Var.  $\beta$ . *Testa maculis aurantiis majoribus, trifasciatim coalescentibus; strigis fuscis longitudinalibus prominentioribus.*

Conch. Icon., *Conus*, pl. 37. f. 202.

*Hab.* Mouth of the Victoria River, New Holland; H.M.S. *Beagle*.

This highly interesting species must be seen to be appreciated, it being quite impossible to do justice either by drawing or description to its elaborate configuration. It is perhaps next allied to the *Conus canonicus*, but is of much lighter and more inflated growth; the three rows of brown-striped orange blotches are peculiar to it; the net-work is finer, and of a much more delicate and tremulous character, and the interior of the aperture, instead of being pink, is of the same greyish blue colour which characterizes the outer surface.

I take the liberty of attaching Her Majesty's name to this beautiful shell, from the circumstance of its having been lately discovered in a locality dedicated in like manner to the same fair patroness of the sciences.

The two specimens here figured, recently in my possession, were collected during the late surveying expedition of H.M.S. *Beagle*. Mr. Cuming and the Rev. Mr. Stainforth each possess several examples.

**CONUS SCALPTUS.** *Con. testâ turbinatâ, solidiusculâ, politâ, basim versus sulcatâ; albidd, filis rubidis numerosis, rariter interruptis, cinctâ; spirâ elevatâ, spiraliter striatâ, rubro variegatâ, apice acuto.*

Conch. Icon., *Conus*, pl. 37. f. 203.

*Hab.* — ?

This is a new and very distinct species; the transverse lines exhibit the appearance of scratches and are very characteristic. M. Chenu of Paris proposed describing this shell under the title of *C. radiatus*, but that name has been applied to another species by Gmelin, though not acknowledged.

**CONUS MUCRONATUS.** *Con. testâ acuminato-turbinatâ, basim versus attenuatâ, transversim sulcatâ, sulcis striis longitudinalibus cancellatis; albidd, fusco pallidè tinctâ et variegatâ; spirâ elato-exsertâ, fusco pallidè maculatâ, apice mucronato, acuto.*

Conch. Icon., *Conus*, pl. 37. f. 204.

*Hab.* Islands of Burias, Siquijor, Penay, &c., Philippines; Cuming.

Several examples of this species have been collected by Mr. Cuming, varying remarkably in their general appearance; most of them



are obsoletely coronated, and all have the grooves more or less strongly developed, with the apex remarkably sharp-pointed. *Coni sulcatus* and *orbitatus* are the nearest allied species.

**CONUS CUNEOLUS.** *Con. testâ abbreviato-turbinatâ, supernè obesâ, subinflatâ; fuscâ, maculis albidis paucis parvis, irregularibus, subtrigonis, fasciatim aspersâ, fasciâ albidâ, fusco pallidè strigatâ, interdum subobsoletâ, infrâ medium ornatâ; spirâ convexo-obtusâ.*

Conch. Icon., *Conus*, pl. 37. f. 205.

*Hab.* — ?

This apparently variable species approximates in some degree to the *Conus mercator*.

**CONUS VERRICULUM.** *Con. testâ cylindræo-turbinatâ, ventricosâ, subrotundatâ, lævi, basim versus striatâ; albidd, maculis aurantiis irregularibus bifasciatim cinctâ, aurantio-fusco aliter latissimè reticulatâ; maculis lineis undulatis nunc transversim, nunc longitudinaliter strigatis; spirâ concavo-acuminatâ.*

Conch. Icon., *Conus*, pl. 38. f. 208.

*Conus textile*, var. *l*, Lamarck.

*Hab.* Ceylon, &c.

Many persons will no doubt cavil at my attaching a new specific name to this long-established variety of the *Conus textile*, but how can Lamarck's *Conus vicarius* stand, unless this shell be elevated to the same rank? Its inflated growth and the wide open character of the net-work are somewhat constant, and it may as well be noticed that the *Conus verriculum* has long been erroneously set apart by collectors for the *Conus archiepiscopus*, a very different shell, and one of much greater rarity. Either the *Conus verriculum* must be adopted, or the *Conus vicarius* must be rejected, and both considered as varieties of the *Conus textile*.

There can be no law for the adjudication of species, whilst a species remains to be defined. If the *Coni vicarius* and *verriculum* be discarded, hundreds of species may be banished in like manner from the nomenclature, as the links in the grand chain of affinity between the *Aspergillum* and the *Argonaut* become gradually revealed to observation.

**CONUS MARTINIANUS.** *Con. testâ cylindræo-turbinatâ, fuscâ, vel luteolo-fuscâ, ad basim, et per spiræ marginem, albidâ; lævi, infrâ medium sulcatâ, sulcis latiusculis, subdistantibus, striis prominentibus, cancellatis; spirâ convexâ, spiraliter sulcatâ, sulcis numerosis, angustis, apice elato, acuto.*

Conch. Icon., *Conus*, pl. 40. f. 217.

*Conus teres lævis*, Martini, Conch. Cab., vol. ii. p. 233. pl. 53. f. 584; *Conus lacteus*, var. ? Lamarck.

*Hab.* Putao, province of Albay, island of Luzon, Philippines (found under stones at low water); Cuming.

This species has been either injudiciously confounded by Lamarck with the *Conus lacteus*, or it has been altogether neglected. Martini has given a very accurate figure of it, but his irregular style of

nomenclature precludes the possibility of our following the title by which he distinguished it. The *Conus spectrum* is described by that author under the name of *Conus teres*, and this immediately follows under that of *Conus teres lævis*; the former is however a shell of a more inflated growth, and distinguished moreover by markings of which the *Conus Martinianus* is entirely destitute. Most specimens exhibit a longitudinal white streak here and there, running parallel with the lines of growth.

**CONUS INCARNATUS.** *Con. testâ turbinatâ, viz pyriformi, basim versus subtilissimè liratâ, liris numerosis, confertis; albâ, fasciis duabus latissimis, pallidè incarnatis, cinctâ; spirâ convexiusculâ, spiraliter incisâ, maculis incarnatis arcuatis pallidè variegatâ, apice mucronato, elato.*

Conch. Icon., *Conus*, pl. 41. f. 221.

*Hab.* Malacca (found on mud-banks); Cuming.

Although the specimen above described is in the best state of preservation, I should have judged it, from its simple style of colouring, to be a shell of immature growth, were it not that Mr. Cuming collected several specimens of them at Malacca on the mud-banks, all exhibiting the same uniformity of external character.

**CONUS BÆTICUS.** *Con. testâ turbinatâ, solidiusculâ, lævi, basim versus granulosa; albâ, punctis maculisque grandibus, bæticiis, vivide pictâ; spirâ subobtusâ-convexâ, obsoletè coronatâ, spiraliter sulcatâ, sulcis striato-cancellatis.*

Conch. Icon., *Conus*, pl. 42. f. 226.

*Hab.* Philippine Islands; Cuming.

The *Conicus bæticus* exhibits no other colour but that of the dots and blotches, which are of very dark chocolate-brown upon a white ground.

**CONUS EPISTOMIUM.** *Con. testâ elongato-turbinatâ, rectâ, tenuiculâ, albâ, maculis aurantio-fuscis, peculiariter fluentibus, bifasciatim cinctâ, maculis albo subobsoletè transversim punctato-lineatis; spirâ depressiusculâ, fusciscente maculatâ.*

Conch. Icon., *Conus*, pl. 42. f. 227.

*Hab.* Mauritius.

This shell is of a peculiarly straight form, and reminds one very forcibly of the spigot or faucet-stop of a barrel; the very faint white dotted transverse lines are exceedingly regular, and of quite a different character to those of the brocade species.

**CONUS COCCÆUS.** *Con. testâ turbinatâ, supernè obesusculâ, subrotundatâ, transversim subtilissimè liratâ, interstitiis leviter pertusis; albâ, liris maculis parvis irregularibus, pallidè cocceis, eximè tæniatis; spirâ obtuso-convexâ.*

Conch. Icon., *Conus*, pl. 42. f. 228.

*Hab.* New Holland.

Mr. Cuming possesses three specimens of this delicately marked Cone, the entire surface of which is covered with faintly articulated fillets of white and scarlet.

**CONUS CLERYI.** *Con. testâ turbinatâ, supernè acutangulâ, tenuiculâ, per totam superficiem subtilissimè liratâ; albâ, strigis fuscescens, longitudinaliter undatis, subirregulariter variegatâ; spirâ depressiusculâ, leviter canaliculatâ, apice elato, mucronato.*

Conch. Icon., *Conus*, pl. 43. f. 229.

*Hab.* Cape St. Thomas, Brazils (found in sandy mud at the depth of thirty-five fathoms); Clery.

I have much pleasure in adopting the name of an intelligent French naval commander, to whom we are indebted for this, and many new and interesting species of shells.

**CONUS PIPERATUS.** *Con. testâ subabbreviato-turbinatâ, basim versûs sulcatâ; albâ, maculis fuscis parvis sparsis irregulariter ornatâ; spirâ convexâ, spiraliter striatâ, apice mucronato, elato; aperturâ fauce fuscescente tinctâ.*

Conch. Icon., *Conus*, pl. 43. f. 230.

*Hab.* — ?

The *Conus erythræensis* is perhaps the nearest allied species to this, well characterized by the stained interior, and the more dotted style of the external painting.

**CONUS GRÜNERI.** *Con. testâ turbinatâ, supernè lævi, infrâ transversim sulcatâ, sulcis prominentibus; albâ, maculis subquadratis rubris trifasciatim tæniatâ, intervallis punctis rubris minutissimis aspersis; spirâ depresso-planâ, spiraliter canaliculatâ, basi intus extusque nigricante-violaceo tinctâ.*

Conch. Icon., *Conus*, pl. 43. f. 231.

*Hab.* Island of Java.

This is a beautiful little species, very distinct from any hitherto described. At the request of Mr. Cuming I have named it after M. Grüner of Bremen, a very zealous collector, whom I thank most cordially, not only for the loan of the shell, but for setting an example which I trust continental amateurs will not fail to profit by.

There is another specimen, of rather larger size, in the cabinet of Mr. J. E. Gray of the British Museum.

**CONUS SINDON.** *Con. testâ subventricosu-turbinatâ, læviusculâ; albâ, lineis rubido-fuscis subtilissimis densissimè bifasciatim decussatâ; spirâ subobtusâ-convexâ, apice rosaceo.*

Conch. Icon., *Conus*, pl. 43. f. 233.

*Hab.* — ?

This interesting shell, for the loan of which I am indebted to the zeal of Mr. Adamson of Newcastle, is very distinct from any hitherto described species. The painting viewed through an ordinary lens suggests the appearance of very fine lawn or cambric linen, and is of quite a novel character.

**CONUS PARIUS.** *Con. testâ turbinatâ, solidâ, supernè obesâ, basim versus sulcatâ, sulcis distantibus latiusculis, densissimè striato-cancellatis; marmoreo-albâ; spirâ plano-convexâ, lævi, apice mucronato, fuscescente.*

Conch. Icon., *Conus*, pl. 43. f. 235.

*Conus spectrum album*, Chemnitz, Conch. Cab., vol. x. pl. 140. f. 1304; *Conus columba*, var. c. Lamarck, Enc. Méth., pl. 331. f. 3.

*Hab.* —?

This shell, which is of a solid, shining white (like the celebrated marble of Paros), has been evidently confounded with the *Conus columba*; it requires however no very great exercise of critical discrimination to perceive that it differs materially both from that and the preceding species.

**CONUS EXARATUS.** *Con. testâ turbinatâ, subangustâ, per totam superficiem sulcatâ, sulcis regularibus, latiusculis, interstitiis subtilissimè striato-cancellatis; pallidè cæruleo-purpureâ, maculis ferruginosis albiatubeculatis, perpaucis, parvis, sparsim ornatâ; spirâ acuminatâ,*

Conch. Icon., *Conus*, pl. 44. f. 238.

*Hab.* —?

This is a very distinct species, remarkable for the regularity with which it is grooved.

**CONUS USTULATUS.** *Con. testâ subelongato-turbinatâ, supernè tumidiusculâ, margine rotundatâ, transversim subtilissimè liratâ; pallidè ustulato-rubidâ, baltâ albidâ angustâ in medio cinctâ; spirâ convexâ, spiraliter striatâ, maculis perpaucis sparsis purpureo-rubris ad marginem superiorem ornatâ; apice mucronato.*

Conch. Icon., *Conus*, pl. 44. f. 239.

*Hab.* New Holland.

There is no trace of any purple-red spots or other dark character on the body of the shell.

**CONUS ACULEIFORMIS.** *Con. testâ elongato-turbinatâ, subfusiformi, undiquè sulcatâ, sulcis subtilissimè striato-cancellatis, nunc angustis, liris intermediis planis latiusculis, nunc latioribus, liris intermediis rotundatis angustis; albidâ, fuscescente punctatâ, maculis fuscescentibus biseriatim cinctâ; spirâ acuminatâ, apice elato, acuto.*

Conch. Icon., *Conus*, pl. 44. f. 240.

*Hab.* Cagayan, island of Mindanao, Philippines (dredged from sandy mud at the depth of from twenty-five to thirty fathoms); Cuming.

The specimens collected by Mr. Cuming at the above-mentioned island are mostly smaller than those here figured.

**CONUS VIOLACEUS.** *Con. testâ elongato-turbinatâ, cylindraceâ, tenui, nitidâ; violacê, transversim obsolete fuscescente punctato-lineatâ, fuscescente longitudinaliter strigatâ, aut sparsim maculatâ; strigis subdistantibus, lineis brevibus fuscescentibus, exiliter albiarticulatis, ornatâ; spirâ rotundato-obtusâ, spiraliter striatâ.*

Conch. Icon., *Conus*, pl. 44. f. 241.

*Hab.* Matnog, island of Luzon, Philippines (found on the reefs); Cuming.

This is a very interesting species; the faint dotted lines with which the entire shell is encircled are scarcely visible on the violet ground

without the assistance of an ordinary lens, but in passing over the longitudinal streaks of light brown they present a more decided appearance.

**CONUS TABIDUS.** *Con. testâ turbinatâ, leviter pyriformi, tenui, undiquè sulcatâ, sulcis basalibus latioribus, profundis, alteris irregularibus, subtilissimis, undulatis; albâ, totâ superficie striis longitudinalibus elevatis peculiariter sculptâ; spirâ subobtusâ-convexâ, obsolete coronatâ.*

Conch. Icon., *Conus*, pl. 44. f. 243.

*Hab.* — ?

I am not aware that the raised longitudinal striæ with which this shell is so delicately sculptured are to be found in any other species of the genus.

**CONUS AMBIGUUS.** *Con. testâ turbinatâ, lævi, basim versus liratâ, lineis subtilissimis, undatis, longitudinalibus, subobsolete incisâ; albâ, pallidè fuscâ tinctâ; spirâ obtusâ-convexâ, leviter canaliculatâ, maculis arcuatis fuscis ornatâ, apice mucronato, elato.*

Conch. Icon., *Conus*, pl. 44. f. 244.

*Hab.* — ?

There is always a doubtful character about shells exhibiting faint indications of colour; I have not, however, succeeded in referring this to any species hitherto described.

**CONUS LENTIGINOSUS.** *Con. testâ fusiformi-turbinatâ, tenuiculâ, lævi, basim versus sulcatâ, sulcis latiusculis, profundis; albidâ, fuscâ lentiginosâ et punctatâ; spirâ elatâ, anfractibus acutangulis, marginibus fuscâ maculatis, maculis subdistantibus; labro subexpanso, juxta spiram emarginato.*

Conch. Icon., *Conus*, pl. 44. f. 245.

*Hab.* — ?

This is an interesting and important species, of which there is a fainter specimen, of more elongated growth, in the collection of Mr. Adamson of Newcastle.

**CONUS TROCHULUS.** *Con. testâ abbreviato-turbinatâ, obesâ, solidâ, lævigatâ, basim versus sulcatâ; albâ, aperturæ fauce rubido-violaceo tinctâ; spirâ obtusâ-convexâ, lævigatâ.*

Conch. Icon., *Conus*, pl. 45. f. 246.

*Hab.* — ?

This species, of which there are several examples in the British Museum, all with the violet-tinged aperture, exhibits the same contrast of colour as a very peculiar white variety of the *Conus nivosus*.

**CONUS SUGILLATUS.** *Con. testâ turbinatâ, solidiusculâ, lævigatâ, basim versus subobsolete noduloso-liratâ; albidâ, fasciis duabus latissimis livido-olivaceis, lineisque exilibus fuscâ punctatis, cinctâ; spirâ plano-convexâ, canaliculatâ, apice mucronato, elato, anfractuum marginibus subtilissimè obliquè nodulosis; basi et aperturæ fauce violaceo tinctâ.*

Conch. Icon., *Conus*, pl. 45. f. 247.

*Hab.* — ?

This shell may probably have been confounded with the *Conus lividus*; it is, however, quite distinct from that species both in the detail of the painting and in the structure of the spire. The spire is canaliculated, and very peculiarly beaded with fine oblique nodules, the canaliculated surface being of an olive-brown colour, whilst the nodules are white.

*CONUS SUTURATUS.* *Con. testâ subabbreviato-turbinatâ, solidiusculâ, lævigatâ, basim versus sulcatâ, sulcis latiusculis, distantibus; albâ, basi pallidè rosacè; spirâ plano-converâ, profundè suturatâ, spiraliter liratâ et striatâ, apice minuto, acuto.*

Conch. Icon., *Conus*, pl. 45. f. 250.

*Hab.* — ?

There is a very peculiar character on the spire of this shell; the sutures have an unusually decided appearance, in consequence of a small ridge which each whorl throws up at its junction with the preceding.

*CONUS CREPUSCULUM.* *Con. testâ turbinatâ, tenuiculâ, supernè lævi, infrâ exiliter granulatâ, granulis seriatim digestis, basim versus gradatim majoribus; luteolâ, basi violacè; spirâ converâ, apice mucronato, elato, anfractuum marginibus subtilissimè obsoletè nodulosis.*

Conch. Icon., *Conus*, pl. 45. f. 251.

*Hab.* — ?

This shell is allied in some measure to the *Conus lividus*; it is, however, of much lighter growth, there is no indication of any colour in the aperture, and the spire is obsoletely very finely beaded.

*CONUS TRISTIS.* *Con. testâ turbinatâ, subfusiformi, lævigatâ, basim versus sulcatâ; albâ; spirâ convexo-elatâ, spiraliter striatâ, anfractuum marginibus subtilissimè nodulosis, anfractûs ultimi nodulis obsoletis, apice mucronato.*

Conch. Icon. *Conus*, pl. 45. f. 252.

*Hab.* — ?

There is no indication of any colour in this shell; it is of rather light structure.

*CONUS PLUMBEUS.* *Con. testâ turbinatâ, subpyriformi, irregulariter rugulosâ et granosâ, cæruleo-albâ, olivaceo- aut violaceo-plumbeo fasciatâ et strigatâ; spirâ convexâ, nodulis subtilibus coronatâ, albâ, apice obtuso, rosacè; basi et aperturæ fauce vividè violacè.*

Conch. Icon., *Conus*, pl. 46. f. 253.

*Hab.* — ?

The wrinkles and irregular granules which cover the greater portion of this specimen may not belong to the species, which is introduced upon independent grounds; namely, on account of the cross-blotched style of painting characteristically exhibited on the under side of the shell, the deep violet lining of the aperture, and the rose-tinted apex upon a neatly coronated white spire.

**CONUS BRODERIPII.** *Con. testâ tenuiculâ, subinflât, transversim sulcatâ, sulcis basim versus distinctioribus, subtilissimè pertusis; pallidissimè incarnato-albâ, maculis aurantio-fuscescentibus inter sulcos ornatâ; spirâ planiusculâ, spiraliter sulcatâ, apice elato, mucronato; basi et aperturæ fauce pallide incarnato-rosed.*

Conch. Icon., *Conus*, pl. 46. f. 254.

*Hab.* — ?

I have much pleasure in dedicating this very chaste and beautiful species to W. J. Broderip, Esq., F.R.S., a gentleman well known in the conchological world, to whose zeal the country is much indebted for this and many other valuable shells which adorn our national collection.

**CONUS LAUTUS.** *Con. testâ turbinatâ, tenuiculâ, lævigatâ; luted, punctis grandibus fuscis, trifasciatim confusis, seriatim cinctâ; spirâ obtuso-convexâ, strigis fuscis arcuatis ornatâ.*

Conch. Icon., *Conus*, pl. 46. f. 255.

*Hab.* — ?

I am unable to connect this with any hitherto described species; it exhibits a bright display of colour, and must be a striking shell in finer condition.

**CONUS ÆMULUS.** *Con. testâ turbinatâ, supernè tumidiusculâ, lævigatâ, olivaceo-cæruleâ, olivaceo-fusco variegatâ, tæniatâ, et maculatâ; spirâ subobtusâ-elatâ, suturis rudibus; aperturæ fauce olivaceo-fusco tinctâ.*

Conch. Icon., *Conus*, pl. 46. f. 256.

*Hab.* — ?

This is another very richly coloured shell allied in some measure to the *Conus Guinaicus*, but presenting a very different style of painting.

**CONUS GRAYI.** *Con. testâ turbinatâ, supernè obesâ, subpyriformi, solidâ, lævigatâ, basim versus lirât; cæsid, aut cinereo-cæruleâ, maculis grandibus nigricantibus, undatis, sæpissimè bifasciatim digestis, ornatâ; spirâ convexâ, apice mucronato.*

Conch. Icon., *Conus*, pl. 46. f. 258.

*Hab.* — ?

As our national Museum is indebted to Mr. Gray for this very interesting new species, I have much pleasure in naming it after him.

**CONUS MINUTUS.** *Con. testâ oblongo-turbinatâ, pyramidalî, lævigatâ; incarnatâ, fasciis duabus rubidis latissimis cinctâ; spirâ elatâ, anfractuum marginibus rubido-fusco maculatis.*

Conch. Icon., *Conus*, pl. 47. f. 259.

*Hab.* Island of St. Vincent, West Indies; Guilding.

This is the smallest species of the genus, and quite peculiar in its characters.

**CONUS PYGMÆUS.** *Con. testâ subabbreviato-turbinatâ, lævi, infernè sulcatâ, sulcis prominentibus, subdistantibus; pallidè violaceo-albâ, strigis fuscis longitudinalibus, latis, undatis, punctorumque seriebus*

*transversis ornatâ; spirâ quasi gradatim elatâ, lævi; apertura fauce rubido-violaceâ.*

Conch. Icon., *Conus*, pl. 47. f. 260.

*Hab.* — ?

The dark zigzag streaks in this little shell pass over the edges of the whorls, leaving their ends visible on the spire.

*CONUS CONSPERSUS.* *Con. testâ turbinatâ, leviter inflatâ, lævi, basim versus sulcatâ; pallidè luteolâ, maculis aurantio-fuscis variisque irregulariter conspersis, lineis capillaribus confertis, undique cinctâ; spirâ convexâ, aurantio-fusco maculatâ.*

Conch. Icon., *Conus*, pl. 47. f. 262.

*Hab.* — ?

This species may be recognized by the fine hair lines with which its entire surface is ornamented.

*CONUS ATTENUATUS.* *Con. testâ gracile turbinatâ, basim versus attenuatâ, lævi; luteâ vel aurantio-fuscescente, strigis albidis perpaucis latis undatis longitudinaliter ornatâ; spirâ depressâ, acutangulâ, aurantio-fuscescente alboque tessellatâ, apice acutissimo, elato.*

Conch. Icon., *Conus*, pl. 47. f. 263.

*Hab.* — ?

The long, slender, sugar-loaf form of this shell is rather peculiar, and it exhibits a style of painting which I do not remember to have observed in varieties of any other species.

*CONUS BUXEUS.* *Con. testâ elongato-turbinatâ, subcylindrâ, lævi, basim versus subtiliter lirâtâ; luteo-fuscescente, filis fusco-punctatis numerosis, confertis, cinctâ; spirâ elatâ, anfractuum marginibus subtilissimè nodulosis, apice mucronato.*

Conch. Icon., *Conus*, pl. 47. f. 265.

*Hab.* — ?

The *Conus buxeus* is very closely allied to the *Conus lignarius*; it differs chiefly in being of a more elongated or fusiform shape, whilst the spire is distinctly beaded and not canaliculated.

*CONUS NITIDUS.* *Con. testâ turbinatâ, lævi, nitidâ, prope basim subtilissimè lirâtâ; aurantio-fuscescente, supernè et medianè exiliter albimaculatâ, lineis fuscis interruptis subdistantibus undique cinctâ; spirâ subelatâ, spiraliter striatâ, apice pallidè rosaceo.*

Conch. Icon., *Conus*, pl. 47. f. 266.

*Hab.* — ?

The lines which encircle the entire surface of this delicate little Cone are more particularly interrupted in passing over the faint spots round the middle and upper part of the shell. The pink apex is very characteristic.

*CONUS CASTUS.* *Con. testâ turbinatâ, subinflatâ, lævi; luteâ, lineis perpaucis exilibus, subtilissimè nigricante-punctatis, irregulariter distantibus, cinctâ; spirâ lævi, apice rosaceo.*

Conch. Icon., *Conus*, pl. 47. f. 267.

*Hab.* — ?



This is another very chaste and characteristic species, allied to the *Conus daucus*.

**CONUS LIRATUS.** *Con. testâ subabbreviato-turbinatâ, liris subprominulis undique circumdatâ; albidd, maculis paucis aurantio-fuscis longitudinaliter confluentibus biseriatim cinctâ; spirâ exsertâ, noduliferâ, apice pallidè rosaceo; basi et aperturæ fauce vividè violaceo-rosed.*

Conch. Icon., *Conus*, pl. 47. f. 268.

*Hab.* — ?

A very curious well-marked species, in excellent condition, which, I believe, is at present unique in the unrivalled Cone-collection of the Rev. F. J. Stainforth.

#### Genus PLEUROTOMA.

**PLEUROTOMA FIGA.** *Pleur. testâ crassâ, obtuso-pyramidalî, albâ, maculis fuscis, paucis, grandibus, subquadratis, irregulariter variegatâ; anfractibus eleganter semicostatis, costis angustis, numerosis; supernè lævibus, concavis; sinu lato.*

Conch. Icon., *Pleurotoma*, pl. 8. f. 61.

*Hab.* Island of Capul, Philippines; Cuming.

A very solid white shell, pied here and there with dark brown blotches.

**PLEUROTOMA ALABASTER.** *Pleur. testâ turritâ, intûs extûsque nîved, roseo interdum leviter tinctâ, transversim subtilissimè sulcatâ et striatâ; anfractibus longitudinaliter costatis, supernè subdepressis; sinu lato.*

Conch. Icon., *Pleurotoma*, pl. 8. f. 65.

*Hab.* Island of Siquijor, Philippines (found in loose coral sand on the reefs at low water); Cuming.

The sculpture of this shell is exceedingly delicate, the cross grooves looking as if they had been graved with an etching-point.

**PLEUROTOMA VENUSTA.** *Pleur. testâ obeso-fusiformi, flavicante, fusco-maculatâ; anfractibus rotundatis, transversim multicostatis, obliquè maculatis, supernè depressis, maculis majoribus vividè pictis; canali elongato.*

Conch. Icon., *Pleurotoma*, pl. 9. f. 79.

*Hab.* Island of Siquijor, Philippines (found in coral sand on the reefs at low water); Cuming.

This highly interesting shell, which is at present unique in Mr. Cuming's collection, differs materially, both in form and in the colour and character of the marking, from any of its congeners.

**PLEUROTOMA EXIMIA.** *Pleur. testâ gracilè fusiformi, albâ, anfractibus convexis, costis angustis longitudinalibus, striisque transversis elevatis, eximè cancellatâ; sinu subindistincto; canali mediocri, leviter tortuoso.*

Conch. Icon., *Pleurotoma*, pl. 10. f. 82.

*Hab.* Island of Masbate, Philippines (found under stones at low water); Cuming.

The canal of this Muriciform species, though somewhat indistinct, fully entitles it to a place amongst the *Pleurotomæ*.

**PLEUROTOMA ALBIBALTEATA.** *Pleur. testâ ovato-oblongâ, luteâ, albibalteatâ, anfractibus convexis, transversè lineatis, longitudinaliter noduloso-costatis; labro incrassato, sinu parvo; canali brevi, recurvo.*

Conch. Icon., *Pleurotoma*, pl. 10. f. 84.

*Hab.* Island of Ticao, Philippines (found in sand at the depth of six fathoms); Cuming.

The white belt which passes round each of the whorls of this shell is of a peculiarly opaque nature. The ribs are more distant from each other in some specimens than in others, and the lower part of the last whorl is occasionally stained with dark brown.

**PLEUROTOMA TRITONOIDES.** *Pleur. testâ subovali, apice acuto, fulvâ, pallidè albifasciatâ; anfractibus convexis, costis longitudinalibus, subtilissimè nodulosis, lineis transversis elevatis eximè cancellatis; labro incrassato, sinu parvo; canali brevi, subrecurvo.*

Conch. Icon., *Pleurotoma*, pl. 10. f. 85.

*Hab.* Bais, island of Negros, Philippines (found in coral sand at the depth of seven fathoms); Cuming.

This shell is of a duller and more uniform colour than the preceding; the last whorl is more ventricose, and the longitudinal ribs are finer and more numerous.

**PLEUROTOMA ABBREVIATA.** *Pleur. testâ abbreviato-fusiformi, cæruleo-albâ, nigro maculatâ et punctatâ; anfractibus medio angulato-carinatis, carinâ medio partitâ, supernè depressis, funiculo maximo nigro-maculato cingulatis, infernè multifuniculatis, funiculis minoribus nigro lineatis et punctatis; canali vix elongato.*

Conch. Icon., *Pleurotoma*, pl. 10. f. 86.

*Hab.* Island of Masbate, Philippines (found on the reefs at low water); Cuming.

A very interesting species, which looks at first sight like a broken portion of the *Pl. tigrina*. A number of specimens were collected by Mr. Cuming at the above-mentioned island.

**PLEUROTOMA BIJUBATA.** *Pleur. testâ cylindraceo-pyramidali, fuscâ, fuscescente carinatâ; anfractibus convexis, æquidistanter carinatis, carinis duabus centralibus jubatis; aperturâ brevi; canali brevissimo.*

Conch. Icon., *Pleurotoma*, pl. 10. f. 87.

*Hab.* Island of Burias, Philippines (found under stones at low water); Cuming.

Of the two crested keels which encircle this very characteristic species, the upper one is the more faintly developed.

**PLEUROTOMA PLANILABRUM.** *Pleur. testâ ovato-oblongâ, apice acuto; rubido-fuscâ; anfractibus convexis, transversè lineatis, longitudinaliter costatis, costis ferè obsoletis; aperturâ oblongâ, labro plano, rubido, intùs denticulato; canali brevissimo.*

Conch. Icon., *Pleurotoma*, pl. 10. f. 88.

*Hab.* Sibonga, island of Zebu, Philippines (found under stones at low water); Cuming.

The posterior extremity of the lip in this shell is acuminate to a sharp point.

*PLEUROTOMA CORUSCA.* *Pleur. testâ subpyramidali, valde politâ; anfractibus supernè planis, fusco alboque nebulosis, infernè leviter prominentioribus, punctis fuscis irregularibus cingulatis, anfractu ultimo punctorum seriebus duabus cingulato; aperturâ brevi; canali brevissimo.*

Conch. Icon., *Pleurotoma*, pl. 10. f. 89.

*Hab.* Island of Capul, Philippines; Cuming.

Two specimens only of this shell were found by Mr. Cuming on the reefs at the above-mentioned island.

*PLEUROTOMA HARBORDIANA.* *Pleur. testâ obeso-pyramidali; anfractibus nigerrimis, in medio luteo-balteatis, convexis, transversim subtilissimè striatis, supernè depressiusculis, serie unicâ nodulorum ornatis, infrâ noduloso-costatis; aperturâ breviusculâ; sinu parvo, rotundato.*

Conch. Icon., *Pleurotoma*, pl. 11. f. 93.

*Hab.* —?

I have much pleasure in dedicating this species to its possessor, an intelligent conchologist, and one highly worthy of remembrance. The yellow belt which passes round the middle of each whorl has a strikingly neat appearance.

*PLEUROTOMA PERRONII.* *Pleur. testâ fusiformi, turritâ, leviusculâ, pallidè luteâ; anfractibus planis, supernè leviter angulatis, ultimo infernè coarctato, transversim lirato, liris regularibus, subdistantibus; sinu subcentrali; canali subelongato, recto.*

Conch. Icon., *Pleurotoma*, pl. 11. f. 94.

*Murex Perron*, Chemnitz, Conch., vol. x. pl. 164. f. 1573.

*Hab.* —?

This interesting shell has been confounded by Lamarck with the *P. spirata*. It differs from that species in being more erect and fusiform, in the sutures of the whorls being less deeply channeled, and in the lower portion of the last whorl being crossed with about four or five narrow, well-developed ridges.

*PLEUROTOMA PLUTEATA.* *Pleur. testâ fusiformi, gracili, fulvâ; anfractibus convexis, pluteo supernè ornatis, medio nodulis albidis catenulatis, infrâ subtilissimè sulcatis; sinu lato; canali elongato.*

Conch. Icon., *Pleurotoma*, pl. 12. f. 101.

*Hab.* —?

The shelf which passes round the upper portion of the whorls is not less characteristic of this species than the delicate chain of white nodules which encompass the centre.

*PLEUROTOMA MYSTICA.* *Pleur. testâ abbreviato-fusiformi, rubidofusâ; anfractibus supernè concavis, striatis, infrâ angulatis, tu-*

*berculis albis, connatis, ad angulum acutè curinatis; anfractu ultimo infernè nodulorum seriebus plurimis cingulato.*

Conch. Icon., *Pleurotoma*, pl. 12. f. 107.

*Hab.* —?

Chiefly distinguished by the white turreted keel.

**PLEUROTOMA PHILIPPINENSIS.** *Pleur. testâ ovato-turritâ, ventricosâ, subpellucidâ, albidd; anfractibus sex septemve, longitudinaliter costatis, costis eximiiis, subcompressis, subdistantibus, nigro aut fusco alboque variè pictâ; transversim liratis, liris minutis, subcontiguis, numerosis; columellâ subtortuosâ; aperturâ ovatâ, amplâ; canali brevissimo.*

Conch. Icon., *Pleurotoma*, pl. 13. f. 109.

*Hab.* Islands of Masbate and Luzon, Philippines (found under stones at low water); Cuming.

It is impossible to do justice, either by figure or description, to this very delicate and beautiful species, the chief peculiarity of which is the black and opaque white irregularly-variegated blotching of the ribs. Several specimens were collected by Mr. Cuming at the above-mentioned islands, varying more or less in the number and proximity of their ribs: one or two specimens have as many as sixteen ribs on the last whorl,—twelve to fourteen is the average number.

**PLEUROTOMA RISSOIDES.** *Pleur. testâ elongato-ovali, lævi, nitente, semipellucidâ, albicante, fulvo pallidissimè nebulosè strigatâ; anfractibus septem, tribus longitudinaliter plicatis; apice rubello; columellâ spiraliter tortuosâ; canali brevissimo, leviter recurvo; labro subincrassato, intùs eximie denticulato, sinu parvo, distincto.*

Conch. Icon., *Pleurotoma*, pl. 13. f. 111.

*Hab.* —?

This species reminds me somewhat of the *Rissoa deformis*; the first whorl or two are plaited as in that shell, the surface is moreover smooth and shining, and they bear a general resemblance to each other in size. The apex of this shell is peculiar in being pink, whilst there is not the least indication of that colour in any other part.

**PLEUROTOMA BOHOLENSIS.** *Pleur. testâ subelongatâ, tenui, subpellucidâ, albidd, fulvo subindistinctè virgatâ; anfractibus octo, transversim lineatis et liratis, striis quoque subtilissimè reticulatis; columellâ spiraliter tortuosâ; canali brevissimo, paululùm recurvò; labro simplici, acuto, sinu parvo.*

Conch. Icon., *Pleurotoma*, pl. 13. f. 112.

*Hab.* Island of Bohol, Philippines (found under stones on the reefs at low water); Cuming.

This shell, which is of a much thinner and slighter composition than either of the two preceding ones, is very finely reticulated over with striæ; and it has a number of lines and ridges running transversely across the whorls, but none longitudinally.

**PLEUROTOMA GRACILENTA.** *Pleur. testâ gracillimè fusiformi, fulvâ, anfractibus converis, longitudinaliter costellatis, costellis leviter nodulosis, striis elevatiusculis transversis decussatis; labro subflexuoso, sinu lato; canali breviusculo.*

Conch. Icon., *Pleurotoma*, pl. 14. f. 114.

*Hab.* Loay, island of Bohol, Philippines (dredged from sandy mud at the depth of seventeen fathoms); Cuming.

A shell of simple character, unlike any hitherto-described species, though not presenting any very striking peculiarity.

*PLEUROTOMA PESSULATA.* *Pleur. testâ subacuto-fusiformi, fulvâ vel cinerea, anfractibus leviter convexis, longitudinaliter costatis, costis subdistantibus, striis transversis subobsoletis decussatis; labro tenui, sinu parvo; canali breviusculo, subrecurvo.*

Conch. Icon., *Pleurotoma*, pl. 14. f. 115.

*Hab.* Bolinao, island of Luzon, Philippines (dredged from sandy mud at the depth of ten fathoms); Cuming.

Although the ribs in this species are comparatively distant from each other, they vary considerably in this respect in different individuals; the more elongated the shell, the closer the ribs, as shown by the specimens figured.

*PLEUROTOMA CONTRACTA.* *Pleur. testâ elongato-ovatâ, albâ; anfractibus plano-convexis, supernè contractis, costellis longitudinalibus numerosis, striisque transversis elevatis eximè reticulatis; sinu lato, canali brevi.*

Conch. Icon., *Pleurotoma*, pl. 14. f. 116.

*Hab.* Cagayan, province of Misamis, island of Mindanao, Philippines (dredged from sandy mud at the depth of twenty-five fathoms); Cuming.

This species may be recognized by the peculiar contraction of the whorls near the suture; the sculpture is not much unlike that of the *C. gracilentâ*.

*PLEUROTOMA CEDO-NULLI.* *Pleur. testâ lanceolato-fusiformi, eximè turritâ, apice acuto; griseo-albicante; anfractibus in medio valde carinatis, carinâ compressâ, pereleganter diadematâ; sinu amplo, canali longissimo.*

Conch. Icon., *Pleurotoma*, pl. 14. f. 117.

*Hab.* Bay of Panama (found in sandy mud at the depth of ten fathoms); Cuming.

Although this beautiful little shell has not reached its mature growth, I do not hesitate to publish it as a new species; the curious diadem of sharp flattened processes, which forms so striking a peculiarity, is somewhat like that of the *Fusus pagodus*, Lesson, figured by Kiener, pl. 5. f. 2. The sinus is rather large, and the sinuated striae on the upper part of the whorls distinctly exhibit the traces of its earlier formation throughout their several volutions.

*PLEUROTOMA CRASSILABRUM.* *Pleur. testâ ovato-turritâ, flavicante, fusco cæruleoque variè zonatâ; anfractibus convexis, superne levibus, infrâ tuberculato-costatis, costis striis transversis elevatiusculis decussatis; aperturâ brevi, subrotundâ; canali brevi, subtorquoso; labro valde incrassato, varicoso, intùs acuto, sinu rotundato.*

Conch. Icon., *Pleurotoma*, pl. 14. f. 118 b & c.

*Hab.* Island of Ticao, Philippines (found on the reefs); Cuming.

Var.  $\beta$ . *Testa incolorata, striis transversis ferè obsoletis.*

Conch. Icon., *Pleurotoma*, pl. 14. f. 118 a.

*Hab.* Island of Masbate, Philippines (dredged from sandy mud at the depth of seven fathoms); Cuming.

The blue and brown colouring of the first variety is very conspicuous between the ribs. The var.  $\beta$ , which is colourless, seems to have a thin epidermis upon it.

**PLEUROTOMA HINDSII.** *Pleur. testâ ovatâ, subinflâtâ, albidd, fuscescente pallidè variegatâ; anfractibus costis duabus, ultimo costis quatuor, distantibus, cingulatis, costellis numerosis, compressis, eximie cancellatis; aperturâ ovatâ; canali brevi.*

Conch. Icon., *Pleurotoma*, pl. 14. f. 119.

*Hab.* Baclayon, island of Bohol, Philippines (found under stones on the reefs at low water); Cuming.

This beautifully cancellated shell is closely allied to the *P. tricos-tata*; the ribs, however, are more in number and less prominent. Each whorl exhibits four transverse ribs on its formation, the two lower being concealed in all but the last whorl by the lodgement of one whorl upon the other. The cancellated spaces formed over the surface of the shell by the longitudinal ribs crossing the transverse ones seem slightly concave, and have a very characteristic appearance.

By the above title I wish to honour and keep in remembrance the name of my liberal friend Richard Brinsley Hinds, Esq., R.N., on account of the services he is at this moment rendering to conchological science by his cautious examination and description of the new shells collected by Capt. Sir Edward Belcher and himself during the late prolific expedition of H.M.S. *Sulphur*.

**PLEUROTOMA LACTEA.** *Pleur. testâ ovato-oblongâ, tenui, subinflâtâ; lacted, costis carinisve rotundatis striisque exilibus cinctâ; labro simplici, acuto; sinu parvo; aperturâ ovatâ, canali brevissimo.*

Conch. Icon., *Pleurotoma*, pl. 15. f. 123.

*Hab.* Bolinao, island of Luzon, and Gindulman, island of Bohol, Philippines (found under stones at low water); Cuming.

**PLEUROTOMA BREVICAUDATA.** *Pleur. testâ abbreviato-fusiformi, solidâ, luteâ, apice basique fuscescentibus; anfractibus convexis, superne unicarinatis, infra bicarinatis, anfractu ultimo multicarinato; labro simplici, acuto; sinu amplo; aperturâ parvâ, brevi, canali breviusculo.*

Conch. Icon., *Pleurotoma*, pl. 15. f. 126.

*Hab.* Island of Ticao (found on the reefs); Cuming.

This shell reminds one somewhat of the *P. jubata*, but has no in-of the pretty beaded crest which distinguishes that species.

**PLEUROTOMA DIGITALE.** *Pleur. testâ obeso-oblongâ, nigerrimo-tescente, apicem versus incoloratâ; anfractibus convexis, tuber-*

*culis albidis minutis seriatim clathratis; aperturâ breviusculâ, sinu lato.*

Conch. Icon., *Pleurotoma*, pl. 17. f. 138.

*Hab.* Island of Burias, Philippines<sup>9</sup> (found under stones at low water); Cuming.

The sculpture of this shell reminds one of the pimpled surface of a thimble.

**PLEUROTOMA HASTULA.** *Pleur. testâ elongato-fusiformi, solidiusculâ, albidd, fuscescente sparsim maculatâ; anfractibus liris subtilissimis numerosis cinctis, liriâ centrali lirisque superis majoribus, prominentibus; canali gracili, fissurâ profundâ.*

Conch. Icon., *Pleurotoma*, pl. 17. f. 139.

*Hab.* —?

This species is chiefly characterized by the stout double ridge that encircles each whorl near the suture, and by the central ridge that is formed in place of the slit as the shell advances in growth.

**PLEUROTOMA CUPREA.** *Pleur. testâ acuminato-turritâ, anfractibus supernè depressis, fuscescentibus, liris nodulosis, subflexuosis, distantibus, longitudinalibus, ornatis; aperturâ brevi, sinu lato.*

Conch. Icon., *Pleurotoma*, pl. 17. f. 140.

*Hab.* —?

The little dark brown flexuous ridges, passing down the whorls of a much lighter brown, have a neat and conspicuous appearance.

**PLEUROTOMA VARICOSA.** *Pleur. testâ acuminato-turritâ, anfractibus supernè lævibus, infrâ longitudinaliter costatis, costis subirregularibus, griseis, interstitiis griseo-cæruleis, transversim striatis, varicibus rudibus lutescentibus grandibus sparsis peculiariter notatis; canali brevissimo, leviter recurvo; sinu lato, subprofundo.*

Conch. Icon., *Pleurotoma*, pl. 17. f. 141.

*Hab.* Calapan, island of Mindoro, Philippines (found in coarse sand at the depth of fifteen fathoms); Cuming.

*Var. β. Testa omnino fusca.*

*Hab.* Island of Corrigidor, Philippines (found in coarse sand at the depth of six fathoms); Cuming.

This species may be easily recognized by its prominent display of varices.

**PLEUROTOMA CARBONARIA.** *Pleur. testâ turritâ, carbonariâ; anfractibus prope suturas depressis, lævibus, infrâ costatis, costis angustis, distantibus, nodulosis; columellâ callositate supernè munitâ; canali brevi; sinu latissimo, profundo.*

Conch. Icon., *Pleurotoma*, pl. 17. f. 145.

*Hab.* —?

All the specimens I have seen of this dark *Melania*-like species have the apex either decorticated or broken away, an indication of their living in brackish water.

## Genus PECTUNCULUS.

PECTUNCULUS SPURCUS. *Pect. testâ subquadrato-ovali, gibbâ, glauco-fuscâ, longitudinaliter costatâ, costis numerosis, angustis, subtilissimè striatis; umbonibus albicantibus, obliquis.*

Conch. Icon., *Pectunculus*, pl. 7. f. 36.

*Hab.* Bay of San Carlos (found in coarse sand at the depth of sixteen fathoms); Cuming.

The width of this little species from the umbones to the margin is comparatively shorter than that of any other species.

PECTUNCULUS PERTUSUS. *Pect. testâ orbiculari, albâ, fusco undatim pictâ; radiatim costatâ, costis subtilissimè pertusis; umbonibus centralibus.*

Conch. Icon., *Pectunculus*, pl. 7. f. 37.

*Hab.* Islands of Mindanao and Luzon, Philippines (found in coarse sand at the depth of ten fathoms); Cuming.

This interesting little species presents a marked peculiarity in the ribs being finely pricked on each side. Two or three specimens only were collected by Mr. Cuming at the above-mentioned islands.

PECTUNCULUS OCLATUS. *Pect. testâ sub-Pectiniformi, radiatim costatâ, fuscâ, maculis albis, superne nigro-marginatis, sparsim et irregulariter ornatâ; umbonibus centralibus, subobliquis.*

Conch. Icon., *Pectunculus*, pl. 7. f. 38.

*Hab.* West Indies.

The ground-colour of this shell being a very dark chestnut-brown, the scattered white spots or spaces have a very prominent appearance. Since the specimen above described was figured, M. Deshayes has kindly lent me a specimen in which the white spaces are considerably larger and more characteristic; and I have also had the pleasure of examining a specimen of exceeding beauty, in the collection of M. Delessert, whose kindness in allowing me to have a drawing made of it was unfortunately too late to be of service.

PECTUNCULUS CANCELLATUS. *Pect. testâ obliquè Pectiniformi, striis subtilissimè cancellatâ; albâ, epidermide luteâ holosericeâ partim indutâ; umbonibus prominentibus, centralibus.*

Conch. Icon., *Pectunculus*, pl. 7. f. 39.

*Hab.* Singapore (found in sandy mud at the depth of seven to ten fathoms); Cuming.

This little shell is very thin and fragile, and perfectly white; the entire surface being delicately cancellated and covered towards the margin with a thick pale yellow epidermis. There is no possibility of confounding it with any other species.

PECTUNCULUS MORUM. *Pect. testâ sub-Pectiniformi, pallide purpureo-rubrâ, maculis rubidis elongatis sparsim et irregulariter pictâ; radiatim costatâ, costis lævibus; umbonibus subcentralibus.*

Conch. Icon., *Pectunculus*, pl. 7. f. 40.

*Hab.* Madagascar?

A very pretty species, in which the ribs radiate somewhat more



obliquely than usual; the general appearance of the shell is not much unlike that of the *P. tessellatus*; it is however lighter and more depressed, with colour and spotting of somewhat different character.

**PECTUNCULUS SICULUS.** *Pect. testâ orbiculari, depressiusculâ, subæquilaterali, longitudinaliter sulcatâ et striatâ; rubido-castanê, fusco transversim zonatâ, zonis sæpè obscuris; umbonibus testæ junioris interdum albimaculatis.*

Conch. Icon., *Pectunculus*, pl. 7. f. 41.

*Pectunculus glycimeris*, Lamarck, Philippi.

Testa junior.

*Arca bimaculata*, Poli.

*Hab.* Mediterranean, coast of Sicily.

Having adopted the old *P. glycimeris* of British authors, I distinguish the *P. glycimeris* of Lamarck by the above new title. Through some unaccountable neglect, these two very different shells have been hitherto published under the same title, and it is hoped that this present amendment will be appreciated.

**PECTUNCULUS PERDIX.** *Pect. testâ orbiculato-cordatâ, subauritâ, radiatim costatâ; costis planulatis, subindistinctis, longitudinaliter striatis, strigis rubido-fuscis, transversis, angulato-undatis, profusè pictis.*

Conch. Icon., *Pectunculus*, pl. 8. f. 46.

*Hab.* Straits of Malacca (found in mud at the depth of seventeen fathoms); Hinds.

The form of this shell approximates very closely to that of the *Pectunculus zonalis*, but the painting of it is of a very different character. The beautiful specimen here figured, collected by Sir E. Belcher, is the only example of the species I have seen, with the exception of a small, worn, odd valve in the collection of M. Deshayes.

**PECTUNCULUS SPADICEUS.** *Pect. testâ orbiculari, radiatim striatâ, pallidè spadiceâ, umbones versus albi, strigis latis, undatis, ornâtâ; epidermide holosericâ; intus albi, margine exiliter crenulatâ.*

Conch. Icon., *Pectunculus*, pl. 8. f. 47.

*Hab.* — ?

There is no very striking peculiarity in this species, although it is too distinct from any other to require comparison. I have seen several specimens of it, both in London and Paris, but have not succeeded in obtaining its true locality.

**PECTUNCULUS FORMOSUS.** *Pect. testâ lenticulari, subdepressâ, vel lævi vel subobscurè radiatâ, subtilissimè concentricè striatâ; luteolactâ, maculis sparsis violaceo-purpureis, longitudinaliter inquinatis, formosè pictâ.*

Conch. Icon., *Pectunculus*, pl. 8. f. 48.

*Hab.* — ?

There are two or three specimens of this handsome shell at Paris, both in the collection at the Jardin des Plantes and in that of M. Delessert.

**PECTUNCULUS SERICATUS.** *Pect. testd orbiculari, Pectiniformi, depressiusculd, albidd, rosaceo-fusco sparsim tinctd et maculatd, epidermide sericd crassd indutd; radiatim sulcatd, sulcis subdistantibus; intus albd.*

Conch. Icon., *Pectunculus*, pl. 9. f. 49.

*Hab.* Island of Tortola, West Indies.

This exceedingly delicate shell is remarkable for its glossy silken epidermis; the hinge-shelf in the interior of each valve is nearly as broad and solid as that of the *Pectunculus strigilatus*, and the teeth are as closely set; the shell altogether exhibits many characters in common with that species, but no indication of the peculiar manner in which it is attenuated towards the umbones.

This is the only specimen I have seen at present.

**PECTUNCULUS LIVIDUS.** *Pect. testd orbiculari, tumidd, inaequilaterali, anticè angulatd; longitudinaliter radiatd, radiis latis, elevatiusculis, subtilissimè striatis, rubido-fuscis, marginem versus livido-cæsiis, epidermide pilosd plus minusve indutis; radiis anticis creberrimis; umbonibus rectè incurvis, maculis albidis perpaucis circumsparsis; intus albd, medio purpureo-nigricante tinctd et maculatd.*

Conch. Icon., *Pectunculus*, pl. 9. f. 51.

*Hab.* Red Sea.

The general outline of this fine species is exactly the same as that of a worn discoloured shell figured in Chenu's 'Recueil de Coquilles' in illustration of the *Pectunculus undulatus* of Lamarck, a species which I cannot identify; its detail of character is however quite at variance with the description. "The longitudinal grooves of the *P. undulatus*," says Lamarck, "are very apparent," whilst this shell, which is in the finest possible condition, cannot be said to be grooved at all, the elevated rays are so superficial. There is also no indication of any waved spots on the body of the shell, nor of any streaks on either side of the ligamentary area; the rays are moreover characterized by a particular style of grey livid painting, which is unquestionably of great specific importance.

**PECTUNCULUS DELESSERTII.** *Pect. testd orbiculari, tumidiusculd, subsolidd, inaequilaterali, altitudine longitudinem æquante; radiatim sulcatd, sulcis numerosis, profundis, subtilissimè striatis, liris intermediis subtilissimè granuloso-corrugatis, longitudinaliter incisis; albd, fasciis pluribus aurantio-brunneis transversim undatd, intervallis fusco lineato-punctatis; intus albd, anticè rubido-purpureo tinctd.*

Conch. Icon., *Pectunculus*, pl. 9. f. 52.

*Hab.* — ?

I have named this beautiful shell, at the desire of Mr. Cuming, after the very highly-respected individual to whom he is indebted for it; though it is not without feeling some degree of compunction that the peculiarities above noted may be merely certain modified conditions of the *Pectunculus assimilis*. It is true that the shell is rounder and more swollen, and consequently without that angular

attenuation which throws the umbones into an oblique direction and contracts the ligamentary area in the *P. assimilis*; there are more-over nine or ten well-developed ridges in the shell under consideration, whilst in that under comparison there are not more than five or six; and the internal marginal denticulations are consequently narrower and more numerous. Future discoveries can alone decide whether these are constant differences or casual modifications.

#### Genus CARDITA.

**CARDITA RADULA.** *Card. testâ subquadrato-oblongâ, albidâ, depressâ, costis tribus et viginti, rubido-fuscis, imbricato-squamosis, squamis fornicatis, semi-erectis, subacutis; costarum interstitiis crenulatis; margine crenato.*

Conch. Icon., *Cardita*, pl. 1. f. 2.

*Hab.* —? .

There are two or three more ribs in this shell than in the following; the dark spots are more numerous, of a reddish instead of a bluish brown, and not of that peculiar half-moon shape, and the scales are more vaulted and erect.

**CARDITA FICA.** *Card. testâ elongato-ovatâ, gibbâ, albâ, nigro aut fusco variè inquinatâ; costis septemdecim sedecimve, in medio angulatis, subtiliter squamosis; intus albâ, posticè nigerrimo-fuscâ.*

Conch. Icon., *Cardita*, pl. 2. f. 8.

*Hab.* Island of Guimaras, Philippines (found under stones at low water); Cuming.

There is a peculiarity in the shape and blotching of this shell which entitles it to be distinguished as a new species. Several specimens were collected by Mr. Cuming at the above-mentioned island, singularly agreeing in respect to these characters.

**CARDITA GUBERNACULUM.** *Card. testâ ovato-oblongâ, depressâ, anticè brevissimâ, angustâ, posticè latissimè rotundatâ, subulatâ; brunneâ, luteo purpureoque umbones versus tinctâ; costis plus minusve squamosis, superioribus perpaucis, majoribus, inferioribus angustis numerosis; intus brunneâ, anticè albicante.*

Var.  $\beta$ . *Testa alba, fusco vix tincta.*

Conch. Icon., *Cardita*, pl. 3. f. 9.

*Hab.* Zanzibar.

This is the nearest allied species to the *C. semi-orbiculata*; the dark variety might indeed be easily mistaken for it, were it not for the scales and peculiar elongation of the ventral portion of the shell.

**CARDITA MARMOREA.** *Card. testâ elliptico-ovatâ, posticè rotundatâ, anticè peculiariter brevi; lacteâ, nigro umbones versus maculatâ; costis quindecim sedecimve, recto-elongatusculè radiantibus, latescentibus; anticis crenatis, intus eburneâ.*

Conch. Icon., *Cardita*, pl. 3. f. 12.

*Hab.* New Holland.

This shell may be recognised by its peculiarly narrow elongated form, the ligamental area describing a complete angle with the anterior; the ribs do not radiate from the umbones in a curved direction, as in the preceding species, but are nearly straight.

**CARDITA DISTORTA.** *Card. testâ elongato-ovatâ, valdè gibbosâ, peculiariter distortâ, luteolâ; costis duodecim aut plurimis, sub-squamosis, inferioribus planiusculis.*

Conch. Icon., *Cardita*, pl. 4. f. 13.

*Hab.* Red Sea; Rüppell.

There are several specimens of this curious species in Mr. Cumming's collection, all singularly distorted in the same manner.

**CARDITA SENEGALENSIS.** *Card. testâ oblongâ, elongato-ovatâ, fulvâ, epidermide fuscâ indutâ; costis quindecim sedecimve, squamosis, squamis incumbentibus.*

Conch. Icon., *Cardita*, pl. 4. f. 16.

*Le jésou?* Adanson.

*Hab.* Senegal.

This shell, which I know to have been brought from Senegal by M. Rang, approaches nearer to the figure and description of *Le jésou* of Adanson than any that has been hitherto assigned to it.

**CARDITA VOLUCRIS.** *Card. testâ elongatâ, posticè valdè gibbosâ, angulatâ, anticè brevi et coarctato-acuminatâ; viridescente albidd, posticè nigrâ nigroque maculatâ; costis septemdecim, anticis planulatis, marginem versus evanidis; posticis angulatis, hinc illinc obsoletè squamosis.*

Conch. Icon., *Cardita*, pl. 4. f. 20.

*Hab.* —?

Care should be taken not to confound this species with the young of the *C. pectunculus*. It is a solid well-developed shell, and never exceeds an inch to an inch and a half in length.

**CARDITA GIBBOSA.** *Card. testâ ovato-oblongâ, solidâ, gibbosâ; albâ, costis septemdecim, fusco-variegatis, transversim radiantibus, rotundatis, exiliter nodulosis.*

Conch. Icon., *Cardita*, pl. 4. f. 21.

*Hab.* —?

This is a solid gibbous shell, the anterior side of which is not so short as in most of the oblong species of the genus.

**CARDITA NITIDA.** *Card. testâ subquadrato-ovali, eburned, maculis cæcis variegatâ; costis duabus vel tribus et viginti, posticis præcipuè crenatis, interstitiis lineis cæcis angularibus ornatis.*

Conch. Icon., *Cardita*, pl. 6. f. 27.

Var.  $\beta$ . *Testa maculis rubidis.*

*Hab.* Misamis, isle of Mindanao, Philippines (found in sandy mud at the depth of twenty-five fathoms); Cumming.

This pretty shell is remarkable on account of the posterior ribs being more strongly crenated than the anterior,

**CARDITA OVALIS.** *Card. testâ ovatâ, rubido-brunnea, maculis albis sparsim variegatâ; costis octodecim aut novemdecim, crenatis; posticis lævigatis, interstitiis lineis angularibus ornatis; lunulâ distinctâ.*

Conch. Icon., *Cardita*, pl. 6. f. 28.

Var.  $\beta$ . *Testa alba, maculis cæsiis variegata.*

*Hab.* Isle of Corrigidor, Philippines (found in coarse sand at the depth of seven fathoms); Cuming.

I was at one time disposed to consider this species as merely a variety of the preceding. Upon comparison and close examination, they were, however, found to differ in several not unimportant particulars; the posterior ribs of the *C. ovalis* are smooth, they are altogether fewer in number, the umbones are less incurved, and there is a flat indented lunule beneath them, of which I find no indication in the *C. nitida*.

**CARDITA LACUNOSA.** *Card. testâ subovatâ, radiatim costatâ, costis und vel duabus et viginti, elevatis, valde compressis, subtiliter muricato-squamosis; interstitiis latiusculis, lacunato-excavatis; albâ, areâ posticali nigerrimo-fusca.*

Conch. Icon., *Cardita*, pl. 7. f. 31.

*Hab.* —?

The prickly scales which surmount the singularly compressed ribs of this shell are placed at equal distances from each other, whilst each rib is in a manner festooned from one scale to the other, like a miniature series of inverted arches.

**CARDITA CANALICULATA.** *Card. testâ suborbiculatâ, luteolâ, fusco variè zonatâ; radiatim costatâ, costis und vel duabus et viginti, lateraliter compressis, annulato-serratis, interstitiis excavato-canaliculatis; intus albâ, fusco pallidè tinctâ.*

Conch. Icon., *Cardita*, pl. 8. f. 40.

*Hab.* Philippine Islands; Cuming.

The leading features of this species are its rounded form, and the peculiar manner in which the interstices between the ribs are channeled out.

**CARDITA ANGISULGATA.** *Card. testâ ovatâ, rubido-fusco tinctâ et variegatâ; radiatim costatâ, costis und vel duabus et viginti, planis, latiusculis, approximatis, interstitiis angustis, profundè incisis; costis umbones versus annulato-serratis, hinc illinc squamiferis, squamis erectis.*

Conch. Icon., *Cardita*, pl. 8. f. 41.

*Hab.* —?

This species may be easily recognized by the narrow and deeply-cut interstices between the ribs, which are unusually flat towards the margin.

**CARDITA SEMEN.** *Card. testâ ovatâ, subcompressâ, tenui, radiatim costatâ, costis plano-convexis; olivaceo-fusca.*

Conch. Icon., *Cardita*, pl. 9. f. 43.

*Hab.* Mexillones, Desert of Atacama, Bolivia (found at the depth of three fathoms); Cuming.

This minute species is the smallest of the genus; it looks like a little radiated seed.

**CARDITA NODULOSA.** *Card. testâ ovatâ, solidâ, radiatim costatâ, costis duabus vel tribus et viginti, compressis, regulariter nodulosis; lutescente-albâ, prope marginem aurantio tinctâ.*

Conch. Icon., *Cardita*, pl. 9. f. 44.

*Hab.* Sicily?

This shell may be recognized by the compressed character of the ribs, and the very regular manner in which they are noduled.

**CARDITA NAVIFORMIS.** *Card. testâ trapezio-ovatâ, subcompressâ, latere postico elongato-recto; radiatim costatâ, costis paululûm curvatis, squamosis; fusciscente.*

Conch. Icon., *Cardita*, pl. 9. f. 45.

*Hab.* Valparaiso, South America (dredged from sandy mud at the depth of twenty-five fathoms); Cuming.

The shape of this little species is peculiar, though it approaches in great measure to that of the *C. trapezia*.

**CARDITA COMPRESSA.** *Card. testâ suborbiculari, solidâ, valdè compressâ, epidermide olivaceâ indutâ; radiatim costatâ, costis lævibus, planiusculis, interstitiis angustis.*

Conch. Icon., *Cardita*, pl. 9. f. 46.

*Hab.* Valparaiso, South America (dredged from coarse sand at the depth of from twenty to sixty fathoms); Cuming.

Several specimens of this little species were found by Mr. Cuming at the great depth above-mentioned; it has the appearance of the *C. borealis* in miniature.

**CARDITA FLABELLUM.** *Card. testâ flabelliformi, radiatim costatâ, costis leviter serratis; olivaceo-fusâ.*

Conch. Icon., *Cardita*, pl. 9. f. 47.

*Hab.* Valparaiso, South America; Cuming.

The peculiar fan-shape of this minute species distinguishes it in an eminent degree from any hitherto described.

**CARDITA TEGULATA.** *Card. testâ subflabelliformi, radiatim costatâ, costis decem vel undecim, prominentibus, subtiliter squamulosis.*

Conch. Icon., *Cardita*, pl. 9. f. 48.

*Hab.* Valparaiso, South America (dredged from the depth of twenty-five fathoms); Cuming.

The sculpture of this shell reminds one of a tiled roof.

**CARDITA CARDIOIDES.** *Card. testâ globosâ, Cardiiiformi, radiatim costatâ, costis rotundatis, irregulariter nodulosis, interstitiis subprofundè incisis; albâ vel aurantiâ, strigis aurantiis latis, transversis, vividè ornatâ.*

Conch. Icon., *Cardita*, pl. 9. f. 49.

*Hab.* Islands of Corrigidor and Luzon, Philippines (dredged from coarse sand at the depth of seven fathoms); Cuming.

A very pretty, round, solid species, looking more like a *Cardium* externally than a *Cardita*.

**CARDITA FABULA.** *Card. testâ oblongo-ovatâ, latere postico latiore, radiatim costatâ, costis subangulatis; albâ, fusco sparsim maculatâ; intus albâ, posticè fusco-tinctâ.*

Conch. Icon., *Cardita*, pl. 9. f. 50.

*Hab.* Island of Alboran.

The locality above-mentioned is attached in manuscript to a number of specimens of this little shell in the British Museum from Mr. Broderip's celebrated collection.

#### Genus CYPRICARDIA.

**CYPRICARDIA SERRATA.** *Cypr. testâ subquadrato-ovatâ, subflexuoso-distortâ, incrementi gradibus laminis fragilibus numerosis, exiliter serratis, peculiariter notatis, interstitiis subtilissimè radiatim sulcatis; pallidè rosaced, intus vividè purpureâ.*

Conch. Icon., *Cypricardia*, pl. 1. f. 5.

*Hab.* —?

No figure nor description can do justice to this beautiful shell, so remarkable on account of the delicacy of the pink serrated laminæ.

**CYPRICARDIA DECUSSATA.** *Cypr. testâ elongato-ovatâ, regulariter convexâ, tenui, albâ, semipellucidâ, striis exilibus, undulatis, elevatis, obliquè decussatis, ornatâ.*

Conch. Icon., *Cypricardia*, pl. 1. f. 6.

*Hab.* —?

This is evidently one of the terebrating species, belonging to that section of the genus which De Blainville distinguishes by the new generic title of *Coralliophaga*.

The term *decussated* is here used in its strictest and proper sense, signifying oblique crossing, as in the letter X.

**CYPRICARDIA VELLICATA.** *Cypr. testâ oblongo-ovatâ, compressâ, prope marginem ventralem anticam peculiariter vellicatâ; albâ, latere postico purpureo-fusco plus minusve vividè radiatâ; umbonibus purpureo-fuscis.*

Conch. Icon., *Cypricardia*, pl. 2. f. 7.

*Hab.* Calbyog, island of Samar, Philippines (found on soft slaty stones at low water); Cuming.

This interesting species, which has been found in great abundance by Mr. Cuming at the above locality, is distinguished not only by the purple-brown streaks which are more or less strongly depicted on the posterior side of the shell, but by the peculiar manner in which it is pinched, as it were, near the anterior ventral margin.

**CYPRICARDIA INCARNATA.** *Cypr. testâ oblongo-ovatâ, tenui, plano-convexâ, liris planis subtilissimis numerosis ab umbonibus undulatim divergentibus, eximè notatâ; albâ, posticè incarnatâ.*

Conch. Icon., *Cypricardia*, pl. 2. f. 8.

*Hab.* Island of Burias, Philippines (found under a stone at low water); Cuming.

The surpassing delicacy of the ridges is exceedingly characteristic in this species; instead of looking raised upon the surface, they have all the appearance of undulating rays of light.

*CYPRICARDIA LAMINATA.* *Cypr. testâ trapezio-oblongâ, tenui, albâ, latere postico valdè latiore, rotundato, compresso, laminis duabus vel tribus elevatis subdistantibus fimbriato.*

Conch. Icon., *Cypricardia*, pl. 2. f. 9.

*Hab.* Lord Hood's Island, Pacific Ocean (found at the depth of five fathoms piercing, and partially imbedded in, the *Avicula margaritifera*); Cuming.

This peculiarly shaped shell exhibits the same kind of delicate marginal frill of laminæ as the well-known *Cypricardia coralliophaga*, and belongs to a mollusk of the same terebrating habits. The shells of terebrating mollusks vary so exceedingly in form, according to circumstances of situation, &c., that were the *C. laminata*, not entirely destitute of the fine radiating striæ which characterise the *C. coralliophaga*, it might be regarded as a modification of that species.

*CYPRICARDIA OBESA.* *Cypr. testâ subquadrato-ovatâ, valdè gibbosâ, tumidâ, latere postico subobliquè angulatâ; longitudinaliter striatâ, striis profundè incisis; lutescente-albâ.*

Conch. Icon., *Cypricardia*, pl. 2. f. 10.

*Hab.* —?

This remarkable shell may be easily recognized by its stout swollen formation; it differs materially in this respect from its nearest allied species the *C. Guinaica*, as well as in the absence of any nodulous divergent striæ. The ridges between the longitudinal striæ in these species are singularly opposite: in the *Cypricardia obesa* they are sharp and parallel to each other; in the *Cypricardia Guinaica* they are rounded and irregularly waved. Differences in regard to colour are also conspicuous, for the shell under consideration exhibits no indication of pink in the interior, but a kind of a burnt reddish-yellow tinge around the posterior muscular cicatrix.

*CYPRICARDIA SOLENOIDES.* *Cypr. testâ angustâ, Soleniformi, latere postico plano-angulatâ; albâ, posticè purpureo-fusco obsolete radiatâ; umbonibus purpureo-fuscis; intus albâ, ad extremitatem posticam purpureo-violaceo tinctâ.*

Conch. Icon., *Cypricardia*, pl. 2. f. 11.

*Hab.* Calbayog, island of Samar, Philippines (found piercing soft slaty rocks; low water); Cuming.

The *Cypricardia solenoides*, though approximating greatly in form to the *Cypricardia coralliophaga*, differs materially in structure and composition; the two species indeed exhibit all the differences upon which De Blainville founded his genus *Coralliophaga*. Instead of



presenting that pellucid tenuity which seems peculiar to the terebrating species, it is of the same solid opaque structure as the *Cypricardia vellicata*, the umbones have the same purplish-brown patch upon them, and there is an evident indication of the same posterior streaks of that colour.

"Descriptions of new species of *Navicella*, *Neritina*, *Nerita*, and *Natica*, in the cabinet of H. Cuming, Esq.," by C. A. Récluz.

1°. Genre NAVICELLA, Lamarck.

1. NAVICELLA COOKII. *Nav. testâ ellipticâ, anticè angustâ, convexâ, tenuiusculâ, transversim crebrè striatâ, subepidermide olivaceo-lutescente, supernè carnea, lineolis transversis creberrimis lineas latiusculas efformantibus reticulatâ; interstitiis maculis oblongo-acutis lutescentibus, superioribus interdum latioribus pictâ; apice submarginali, integerrimo; aperturâ cærulescente, intûs crocè; labio luteo-fuscescente.*

Var.  $\beta$ . *Testâ carneo-violacescente, fasciis nigris radiantibus, basi ac lateraliter ramosis, lineis transversis nullis; aperturâ intûs croceo maculatâ; maculâ nigro latè marginatâ.*

*Hab.* "Island of Johanna, one of the Commoro islands; found in a small stream by the Rev. W. V. Hennah." H. Cuming.

*Dimensions.*—Long.  $21\frac{1}{2}$  à 25 mill.; larg. 10 à 19 mill.; convex.  $8\frac{1}{2}$  à  $10\frac{1}{2}$  mill.

Cette Navicelle est très rapprochée de la *Nav. La Perousei* (Récluz) et nous l'aurions confondue volontiers avec elle si son opercule, tout à fait différent, ne nous avait fait rechercher avec plus d'assiduité des caractères exclusifs entre les coquilles. La *Nav. de Cook* a le test plus mince, nullement corrodé en dessus, bien que privée d'épiderme dans cette partie de la coquille qui a voisine le soumet; les stries sont mieux marquées; son côté antérieur rétréci et comme comprimé de part et d'autre; son intérieur est privé du reflet cuivré dont l'autre est pourvu. Enfin son opercule, presque de même forme que celui de la *Nav. de La Pérouse*, est noirâtre et non blanchâtre, plus profondément échancré au côté antérieur. La côté ou apophyse dentaire droite et plate en dessus est coupée droitement à sa terminaison; tandis qu'elle est amincée, presque aiguë à sa marge supérieure, comme le tranchant d'un couteau, dans son étendue et un peu tuberculeuse à sa base. La marge externe du côté de l'apophyse est rayonnée de stries fines et à bord entier, et non profondément striée ni crénelée à l'extérieur. Son impression musculaire représente une figure carré-long, une fois plus large que longue, de couleur noire, et est marquée de stries longitudinales légères ondées et rapprochées. Sur l'opercule de la *Nav. de La Pérouse* cette impression est exactement carrée, à angles arrondis, et est très finement sculptée de stries presque droites. La face supérieure de la première a des stries fines et rayonnantes, du soumet à la naissance de l'apophyse, avec un angle rentrant et un autre angle sortant à côté de celui-ci, qui divisent l'opercule en deux parties.

C'est au célèbre et intrépide marin d'Angleterre Cook, que nous faisons hommage du nom de cette intéressante Navicelle.

2. NAVICELLA LINEATA, Lamarck.

Var.  $\gamma$ . *Testâ lincolis transversis tenuissimis, undulatis, creberrimis, olivaceis, et maculis oblongis ac linearibus, lutescentibus pictâ; apice ferè marginali, subviolaceo, suprâ albedo, lævissimè bi-radiato.*

Hab. "Ganges, Bengal." H. Cuming.

Long.  $19\frac{1}{2}$  mill.; larg. 12 mill.; convex. 6 mill.

II°. Genre NERITA, Linné.

Sect. A. *Labro intùs integerrimo; labio supernè nec emarginato.*

Gen. NERITINA, Lamarck, Férussac, &c.

1. NERITA SIQUIJORENSIS. *Ner. testâ ovato-transversâ, posticè angustatâ, dorso-convexâ, supernè planulatâ, solidâ, longitudinaliter tenuiter et crebrè striatâ, spadiceo-reticulatâ, interstitiis maculis oblongis, anticè acutis, albidis seu lutescentibus pictâ; anfractibus  $1\frac{1}{2}$ ; apice retuso; aperturâ extùs ovatâ, intùs lutescente; labio plano, margine et in medio vix arcuato et tenuiter crenato; labro subcontinuo, lateralibus rectiusculo.*

Var.  $\beta$ . *Testâ spadiceo-reticulatâ, fasciis albidis 2-3 cinctâ; labio externè fuscescènte tincto.*

Hab. "Isle of Siquijor, in a small stream." H. Cuming.

Long. 7 à  $7\frac{1}{2}$  mill.; larg. 10 à 11 mill.; convex. 6 mill.

Nérite voisine de la *Nerita violacea*, Gmelin (*Ner. crepidularia*, Lamarck), mais distincte par sa forme, sa coloration et sa spire ré-tuse. *Opércule* plane, blanc-jaunâtre, bicaréné en dessous; à carènes aiguës postérieurement. Il est muni de deux dents: la supérieure courte, un peu relevée; l'inférieure transversale, lamelleuse, saillante, et aiguë postérieurement.

2. NERITA AFRICANA. *Ner. testâ ovato-conoïdè, subepidermide nigrescente strigis nigris longitudinalibus creberrimis et maculis oblongis vel ovatis transversis, luteis, anticè acutis et nigro marginatis, subregularibus, undique pictâ; anfractibus tribus sub-conicis; infimo supernè rugis raris notato; spirâ vix prominulâ, apice erosâ; aperturâ obliquâ, extùs semi-oblongâ, intùs albidocinerascènte; labio convexiusculo supernè calloso, anticè plano, rectiusculo et lævissimè crenato.*

Var.  $\alpha$ . *Anfractu infimo depresso; labro supernè vix fornicato et antorsum productiusculo; labio posticè lutescente.*

Var.  $\beta$ . *Anfractu infimo dorso convexo; labio posticè aurantio.*

Hab. "Island of Fernando Po, west coast of Africa; found in a small stream by Capt. Downs, R.N." H. Cuming.

Long. 17 à 19 mill.; larg. 19 à 20 mill.; convex.  $13\frac{1}{2}$  à 15 mill.

Elle a beaucoup de rapports avec le *Neritina afra*, Sowerby, Conch. Illustr. fig. 13, mais en diffère par sa columelle non échan-crée à la marge. Elle a aussi des rapports avec certaines variétés de

la *Nerit. Brasiliana*, Récluz (*Nerita virginea*, Lamarck, non Linné). Sa forme ovale-conique, ses rugosités obliques et les crénelures marginales de la lèvre interne plus petites et égales la séparent nettement de celle du Brésil.

3. *NERITA* (CLITHON) DA COSTÆ. *Ner. testâ subglobosâ, suprâ medium vix angulosâ, muticâ, olivaceâ, maculis triangularibus albidis, anticè acutè nigris pictâ et fasciis pallidissimè interdum obsoletis cinctâ; anfractibus quaternis plano-declivis; spirâ subconicâ, apice erodâ; aperturâ subrotundâ, intûs albâ et pallidè cærulescente 3-4 fasciatâ; labio compresso, angusto, valdè declivi, superne transversim calloso, margine crenato et in medio tenuiter arcuato; labro infernè dilatato, superne subfornicato.*

*Hab.* "Isle of Negros, in a mountain-stream." H. Cuming.

*Long.* 14 mill.; *larg.* 17 $\frac{3}{4}$  mill.; *convex.* 12 $\frac{1}{2}$  mill.

4. *NERITA* LEACHII, Récluz in Guérin, Rev. Cuvier. 1841, p. 312. no. 33.

*Var. β. Testâ subglobosâ, pallidè fuscâ, luteo-bifasciatâ.*

*Var. γ. ? Testâ subglobosâ, nigerrimâ, maculis punctiformibus vix triangularibus obsitâ, nec fasciatâ.*

An *var. Neritæ guttata*, Récluz in Rev. Cuv. 1841, p. 316. no. 40 ?

*Var. δ. ? Testâ semiglobosâ, tenuiore, striis longitudinalibus regularibus creberrimis, transversis, tenuissimis, nigerrimâ, maculis sparsis, raris, et fasciis angustis binis, lutescentibus, maculis parvulis triangularibus pallidioribus confertis pictâ.*

*Hab.* "Isle of Bohol; found in a small stream." H. Cuming.

Notre *Nerita guttata* est ovale, d'un beau noir et finement ponctué de blanc-lacté; son second tour est légèrement anguleux pris de la suture; son ouverture est plus étroite, et les dents de la marge de la columelle sont plus fines; enfin elle vit à Triton bay. N'ayant pu nous procurer qu'un seul individu de notre espèce, il nous est difficile de la confondre avec la *var. β.* de la *Nerita Leachii* bien qu'elle ait des grands rapports avec elle; nous n'en connaissons pas, d'ailleurs, les opercules.

5. *NERITA* SAYANA. *Ner. testâ ventricosovata, longitudinaliter substriatâ, tenuiusculâ, nitidâ, nigrâ, maculis fuscis seu lutescentibus, diversiformibus, variegatâ aut fuscâ et nigrescente nebulatâ; anfractibus duobus; primo partim deroso, infimo superne depresso; aperturâ subrotundâ, intûs albâ; labio calloso, plano, declivi, margine recto, in medio tenuissimè crenato.*

*Hab.* "Island of Guimaras, Philippines; in small streams." H. Cuming.

*Long.* 14 à 18 mill.; *larg.* 16 à 21 mill.; *convex.* 12 à 15 mill.

Nous dédions cette *Nérite* à feu Mr. Say, auteur de l'*American Conchology*.

6. *NERITA* (CLITHON) SUBPUNCTATA. *Ner. testâ semiglobosâ, olivaceo-fuscâ, tenuiter rugatâ; rugis punctis nigrescentibus seriatis notatis, subepidermide albâ, nigro reticulatâ; anfractu unico, suprâ*

*medium anguloso ; apice perforato ; aperturâ extûs subrotundâ, intûs albo-cinerascente ; labio semilunari, plano, supernè calloso, margine in medio tenuiter arcuato et crenulato ; dente cardinali majore, truncato.*

*Hab.* "Sinait, province of North Ilocos, isle of Luzon ; in a small mountain-stream." H. Cuming.

Long. 11 mill. ; larg. 13 mill. ; convex. 8 mill.

Cette Nérîte n'est peut-être qu'une variété locale de notre *Nerita bicolor*, cependant elle est toujours cinq à six fois plus petite, moins solide, à stries constamment ponctuées de noir par séries longitudinales plus ou moins distinctes, formée d'un seul tour de spire dont l'angle est plus étroit. Son sommet n'est point corrodé, mais muni d'un trou étroit et profond.

Sect. B. *Labro intûs sæpiùs sulcato ; labio supernè emarginato.*

7. *NERITA GRAYANA.* *Ner. testâ ovato-globosâ, dorso-obliquè conoïdè, transversim sulcatâ ; sulcis costis latioribus, striis longitudinalibus creberrimis sculptâ ; anfractibus sordidè nigro-vio-laceis, obsoletè albo maculatis ; spirâ prominulâ, conico-depressâ, acutâ ; aperturâ pallidè fuscèscèntè ; labio planulato, margine tridentato, suprâ rugis confertis valdè impresso ; labro intûs regulariter sulcato, supernè unidentato.*

*Hab.* "Port Curimao, province of North Ilocos, isle of Luzon ; on the rocks at low water." H. Cuming.

Long. 21-25 mill. ; larg. 30 mill. ; convex. 21 mill. *Ouverture*

*extér.* : long. 22 mill. ; larg. 20 à 21 mill. *Spire*, haut. 9 mill.

Nous dédions cette belle Nérîte au savant zoologiste Gray.

8. *NERITA PANAYENSIS.* *Ner. testâ parvâ, ovato-conicâ, aurantid, transversim sulcatâ, longitudinaliter crebrè striatâ ; costis subter lente subgranosis ; spirâ conico-acutâ ; labio plano, lacteo, dentibus tribus remotis instructo ; labro margine crenato, intûs calloso, lacteo, planè lævissimo.*

*Var. β. Testâ ventricosoglobosâ, spirâ vix exsertâ, minimâ, labio basi ruguloso et margine crenulis plurimis notato.*

*Hab.* "Ilo-Ilo, province of Panay ; under stones at low water." H. Cuming.

Long. 13½ mill., *var.* 12 ; larg. 15 mill., *var.* 14½ ; convex. 10, *var.* 10 mill. *Ouverture* : long. 11 mill., *var.* 12 ; larg. 10½, *var.* 10 mill. *Spire* : haut. 4 mill., *var.* 2½ mill.

Le type a des rapports de forme avec la *Ner. aurantia* (Récluz) et la variété avec quelques variétés de la *Nerita Rumphii* (Récluz) ; l'opercule, qui nous est inconnu, pourrait probablement trancher la question.

9. *NERITA BEANIANA.* *Ner. testâ ovatâ, posticè angustatâ, transversim crebrè et tenuiter sulcatâ, nigrâ sive olivaceo-nigricante, fasciis croceis cinctâ ; spirâ obtusâ, decorticatâ ; aperturâ albâ, fauce luteâ ; labio compresso-plano, luteo-fuscèscèntè, granulis nigris signato, margine lævissimè arcuatim excavato, subdentulo ; labro intûs striis tenuissimis elongatis, nigris instructo.*

Var.  $\beta$ . *Testâ olivaceo-nigricante, lineis nigris et lutescentibus, æquidistantibus fasciatâ; labio suprâ rugoso, medio nigro granuloso, labro intûs leviter incrasso et levissimo.*

Var.  $\gamma$ . *Testâ costis subnullis, striis longitudinalibus creberrimis, obsoletisque.*

*Operculum nigrescens, minimè granulatum, subtûs carneo-lutescente, fasciis tribus griseis pictum, costuld pland, obsoletâ, anticè marginatum.. Dente apicali brevi, truncato, infimo transverso, arcuato, plano, posticè dilatato, truncato, superficie substriatâ.*

*Hab.* "Isle of Corregidor, bay of Manila; under stones at low water." H. Cuming.

Long. 14 à 16 mill., var.  $12\frac{1}{2}$  à 13 mill.; larg. 17 à 21 mill., var. 16 à  $16\frac{1}{2}$  mill.; convex. 10 à  $12\frac{1}{2}$  mill., var. 9-10 mill. *Overture extér.*: long.  $12\frac{1}{2}$  à 14 mill., var.  $12\frac{3}{4}$  à 13 mill.; larg.  $12\frac{1}{2}$  à  $13\frac{1}{2}$  mill., var. 12 mill.

Nous donnons à cette belle Nérîte le nom de Mr. Bean, savant conchyliologue de Scarborough.

10. NERITA HINDSII. *Ner. testâ semiglobosâ, solidâ, cinerâ sive albâ, nigro obscurè articulatâ, transversim leviter sulcatâ, striis longitudinalibus undulatis sulcis interdum decussantibus insculptâ; spirâ parvâ, convexo-depressâ, vix exsertâ; aperturâ dilutè straminè; labio angusto, compresso-subcon cavo, rugoso et granuloso, margine in medio 2-4-denticulato; labro intûs valdè calloso et longè sulcato. Operculum pallidè cinereo-fuscescens, granuloseum, obsoletè biangulosum, albido-viridescens, anticè angulum planissimum circumdatum. Dente apicali plano, supernè leviter incrassato, brevi, truncato, basi maculâ fuscâ notatâ; infimo arcuato, substriato, posticè parùm dilatato, truncato.*

*Hab.* "Ilo-Ilo, isle of Panay; under stones at low water." H. Cuming.

Long. 15-17 mill.; larg.  $19\frac{1}{2}$ -20 mill.; convex.  $12\frac{1}{2}$ - $13\frac{1}{2}$  mill.; *Overture*: long. 15- $15\frac{1}{2}$  mill.; larg. 13-14 mill. *Spire*, haut. 6-7 mill.

11. NERITA SPENGLERIANA. *Ner. testâ orbiculato-conicâ, transversim levissimè sulcatâ; sulcis basi obsoletis, albâ, nigrozonatâ; spirâ conico-acutâ, lutescente, nigro-punctatâ, sulcis profundioribus; labio albo, levigato, margine subbidentato; labro intûs incrassato, levissimo. Operculum pallidè fuscum, tenuissimè granuloseum, subtûs pallidè rufum. Dente apicali obsoleto, infimo arcuato, transversim substriato, posticè superficie dilatâ et truncatâ.*

*Hab.* "Ilo-Ilo, isle of Panay; under stones at low water." H. Cuming.

Long. 16 mill.; larg. 18 mill.; convex. 12 mill. *Overture ext.*: long. 14 mill.; larg. 12 mill. *Spire*, haut. 5 mill.

12. NERITA RUMPHII, Récluz, Rev. Cuvier. 1841, p. 147. no. 10. Var. 1. Récluz, loco citato, *Nerita polita oceani australis*, Chemnitz, Conch. v. p. 321. tab. 193. f. 2013 et 2014.

*Hab.* "Trenate, Molucca Islands; under stones at low water." H. Cuming.

Fauce nitidissimè rubro-sanguineâ.

Var. 2. *Testd striis transversis nullis, fasciis viridescentibus immaculatis, alternis albis sive pallidè rufescentibus, nigro articulatis; aperturâ sanguineâ; labio bidentato; labro intus crebrè sulcato.*

Chemnitz, Conch. v. p. 319. pl. 193. f. 2010.

"Island of Trenate, Molucca Islands; on the reefs."

*Operculum Neritæ Rumphii.* Forma *Ner. Orbignyanae* accedens, sed diversa.

Var. 3. *Testd albd maculis nigris latis seriatis unifasciatd.*

"Isle of Ticao; under stones at low water."

Var. 4. *Testd albido-lutescente, nigro latè trifasciatd.*

"Isle of Ticao, &c."

Var. 5. *Testd nigrescente, ravidofasciatd.*

"Isle of Masbate; under stones at low water."

Var. 6. *Testd nigrd, albo angustè trifasciatd.*

"Isle of Corregidor, off Manila; under stones."

Var. 7. *Testd olivaced, nigro-varid, in medio albo-unifasciatd fasciâ lineis angustis olivaceis articulad.*

"Isle of Masbate; under stones."

Var. 8. *Testd lutescente, cæruleo-undatd, fasciis tribus è maculis rubris articulatis.*

"St. Nicolas, island of Zebu; under stones."

Var. 9. *Testd nigrd, venis albis et maculis concoloribus pictâ.*

"Trenate, Molucca Islands; under stones."

Var. 10. *Testd rufescente aut cinered, maculis nigris hastatis transversis pictâ.*

An Chemnitz, v. p. 320. pl. 193. f. 2011? *Nerita pennata*, Deshayes in Lamarck, ed. alt. t. viii. p. 613. no. 23†. (vidi in collectione ejus) non Born, *Nerita pennata*. (Hæc est *Ner. piperina*, Chemnitz, Conch. xi. p. 73. tab. 197. f. 1905, 1906; Lister, Conch. Synops. pl. 604. f. 29; *Neritina piperata*, Sow. Conch. Illust. f. 18.)

"Port of Curimao, province of North Ilocos, isle of Luzon; under stones."

Var. 11. *Testd rufescente aut albidd, roseo-trifasciatd et maculis viridibus parvis seu nebulis varid.*

"Isle of Masbate; under stones."

Var. 12. *Testd violaced, albo angustè trifasciatd.*

"Isle of Corregidor, &c."

Var. 13. *Testd luteo-rufescente, albo-trifasciatd; fasciis nigro sive viridescente articulatis.*

"Isle of Burias; under stones."

Var. 14. *Testd fusco-nigrescente pallidd, fasciis tribus nigris, et maculis albis sparsis pictâ.*

"Isle of Siquijor, under stones; and port of Curimao, province of North Ilocos, isle of Luzon."

Var. 15. *Testd luteo-rufescente, maculis albis transversis parvulis pictâ, nigrescente obsoletè trifasciatd.*

"Trenate, Molucca Islands."

- Var. 16. *Testâ nigro, ravidò et albido-fuscescente fasciatâ.*  
 "Isle of Siquijor, &c."
- Var. 17. *Testâ tenui, striis cancellatâ, fusco-rufescente, interdum maculis nigris parvulis hastatis pictâ; labio planissimo anticè valdè denticulato.*  
 "Isle of Siquijor, &c."
- Var. 18. *Testâ albâ, rufescente fulguratâ sive roseo-trifasciatâ.*  
 "St. Nicolas, isle of Zebu, &c."
- Var. 19. *Testâ lutescente, fasciis viridescentibus zonisque albis nigro-maculatis marginatis.*  
 "Isle of Ticao; under stones."
- Var. 20. *Testâ albo-vinosâ, nigro latè bifasciatâ et in interstitiis interdum viridescente zonatâ.*  
 "Isle of Corregidor, bay of Manila."
- Var. 21. *Testâ albâ aut fuscescente, venis nigris longitudinalibus pictâ et albo unifasciatâ.*  
 "Isle of Corregidor, &c."
- Var. 22. *Testâ sordidè vinosâ seu fusco-violacè, fasciis tribus albis cinereo articulatis seu nebulosis.*  
 "Isle of Burias."
- Var. 23. *Testâ purpureo-nigrescente, fuscescente nigro-punctatâ sive albo-bifasciatâ; fasciis cinereo nebulosis.*  
 "Port of Curimao, province of North Ilocos, isle of Luzon."
- Var. 24. *Testâ albido-lutescente, nigro angustè bifasciatâ.*  
 "Isle of Corregidor."
- Var. 25. *Testâ virescente, albo angustè trifasciatâ.*  
 "Isle of Corregidor."
- Var. 26. *Testâ cancellatâ, totâ nigrâ.*  
 "Isle of Corregidor."
- Var. 27. *Testâ fusco-nigricante, maculis nigris transversis intensioribus pictâ.*  
 "From Pasacos, isle of Luzon."
- Var. 28. *Testâ grised, maculis albis obsoletè tessellatâ.*  
 "Isle of Ticao."
- Var. 29. *Testâ pallidè fusco-rubellâ trifasciatâ, venis albis lineatâ, interstitiis albo angustè marginatis; fasciâ albâ spiram decurrente.*  
 "St. Estevan, province of South Ilocos, isle of Luzon."
- Var. 30. *Testâ dilutè chocolatâ, albido-fasciatâ.*  
 "Isle of Burias."
- Var. 31. *Testâ luteo-castanè, albo angustè trifasciatâ, transversim regulariter sulcatâ, seu levissimè ad spiram tantum spiraliter cingulatâ.*  
 "Isle of Corregidor."
- Var. 32. *Testâ omninò aurantid.*  
 "Jimmamaylan, isle of Negros."

Obs.—Il est impossible de distinguer des espèces parmi ces nom-

breuses variétés dont nous n'avons pas même épuisé la quantité. Les plus riches en couleur vivent dans les mers des Philippines; celles de l'océanie sont moins variées et agréables à la vue, on doit donc savoir gré à Mr. H. Cuming de nous les avoir fait connaître avec les localités particulières dans lesquelles on les trouve. Quoique l'opercule de cette espèce ressemble assez à celui de la *Nérîte polie* (qui a pour type la var. gris-verdâtre trifasciée de rose, figurée par Chemnitz, le type de Linné étant une variété très rare), sa coloration diffère et sa bandelette marginale est toujours plus étroite. Du reste la *Nérîte Rumphii* est toujours plus petite, sillonnée de stries, et souvent treillisée en tout ou en partie.

### III°. Gen. NATICA, Adanson.

#### A. Umbilicum funiculatum.

*Obs.*—Funiculus. Columna callosa auctorum, columella adhærens et in umbilico spiraliter contorta, apice plus minùsve dilatato, truncato, rariùs convexo aut rotundato.

\* *Testa subglobosa; operculum testaceum.* Gen. *Nacca*, Risso.

1. NATICA PICTA. *Nat. testâ ventricosoglobosâ, tenuiusculâ, levigatâ luteo-rufescente, albo angustè 3-4 fasciatâ: fasciis remotis maculis spadiceis sagittatis articulatis, superâ ad suturam spadiceo-marginatâ; spirâ convexo-conicâ, apice spadiceâ; aperturâ intùs fulvâ; columellâ rectâ, basim versus concaviusculâ, supernè breviter reflexâ; umbilico coarctato, quadrato; canali arcuato, extùs zonâ albâ maculis spadiceis undulatis radiatâ; funiculo crasso canalem angustante.*

*Hab.* "Basey, island of Samar, Philippines; found on the reefs."

H. Cuming.

Long. 26 mill.; larg.  $27\frac{1}{2}$  mill.; convex. 21 mill. Ouverture: long.  $20\frac{1}{2}$  mill.; larg.  $13\frac{1}{2}$  mill.

*Testâ fundo pallidè chocolato, fasciâ supremâ rarè maculis supremis majoribus et intensioribus; anfractibus quinis, convexis, supernè depressiusculis.*

2. NATICA RUZONA. *Nat. testâ ventricosoglobosâ, tenui, albâ, lineolis creberrimis longitudinalibus luteo-spadiceis et fasciis tribus è maculis sagittiformibus concoloribus, in supremâ angulatis pictâ; spirâ convexo-acutâ; aperturâ albidâ, basi et externè subacutâ; labio rectiusculo, supernè breviter reflexo et tenuissimo; umbilico rotundato extùs zonâ albâ maculis spadiceis circumdatâ; funiculo angustâ, supernè interdum rotundato et dilatato cavitates angustante; labro fragili.*

*Operculum testaceum, tenue, lineolis elevatis 2-3 anticè cinctum.*

An *Nat. zebra*, var.?

*Hab.* "With *Natica zebra* from Cagayan, province of Misamis, island of Mindanao; found in sandy mud at twenty-five fathoms: and with *Natica areolata* from the isle of Capul, Philippines; on the reefs." H. Cuming.

Long.  $14\frac{1}{2}$  mill.; larg. 16 mill.; convex.  $11\frac{1}{2}$  mill.



## 3. NATICA ORIENTALIS, Gmelin.

Var.  $\gamma$ . *Testâ rufâ, suturâ angustè canaliculatâ, albâ.*

Var.  $\delta$ . *Testâ subepidermide fuscâ albâ, suturâ canaliculatâ, epidermide fusco creberrimè striatâ.*

Var.  $\epsilon$ . ? *Testâ minor, subepidermide pallidè fusco-albâ, zonis binis è maculis elongato-quadratis spadiceis seriatis pictâ; suturâ profundâ, epidermide fusco creberrimè striatâ; aperturâ basi minus auctâ et acutâ; funiculo coarctato.*

Hab. "Singapore; found in sandy mud." H. Cumming.

Var.  $\epsilon$ . Long. 24 mill.; larg.  $23\frac{1}{2}$  mill.; convex. 19 mill. Ouverture: long. 19 mill.; larg. 12 mill.

Operculum inconnu, mais comme la columelle est marquée de la rainure operculaire, il doit être par conséquent de nature testacé et solide, selon nos propres observations. Cette variété, dont je n'ai vu qu'un individu me paraîtrait devoir constituer une espèce distincte, lorsqu'on pourra en étudier quelques autres échantillons.

4. NATICA BRODERIPIANA. *Nat. testâ globoso-ovatâ, solidiusculâ, luteâ seu pallidè fuscâ, zonis albis spadiceo maculatis cinctâ, longitudinaliter tenuiter sulcatâ: sulcis supernè et infernè profundioribus; spirâ conico-acutâ, apice fusco-spadiceâ; suturâ fasciâ albo marginatâ; aperturâ basi et externè angulosâ; columellâ in medio arcuatim concavâ, supernè et infernè incrassatâ; umbilico dilatato, profundo, zonâ albâ, levigatâ circumdatâ; canali umbilico lineari; funiculo crasso, largo, depresso.*

*Testa anfractibus 5-6 convexis, subcostatis. Macula fasciarum nunc quadratâ, nunc transversim oblongâ seu arcuatâ; fasciâ medianâ maculâ biseriata, infimâ parvula. Labrum solidum. Operculum testaceum, anticè striis tribus aratum, in medio costâ arcuatâ valdè exsertâ sculptatum; apice puncto calloso notato; posticè infernè ad marginem crebrè rugoso seu crenulato et in medio ventricosô.*

Hab. "Xipixapi, West Colombia; sandy mud, sixteen fathoms." H. Cumming.

Long.  $25\frac{1}{2}$  mill.; larg.  $23\frac{1}{2}$  mill.; convex. 18 mill. Ouverture: long. 22 mill.; larg.  $10\frac{1}{2}$  mill.

5. NATICA ELENÆ. *Nat. testâ ventricosô-globosâ, posticè angustâ, tenui, longitudinaliter striis æquidistantibus supernè et infernè profundioribus, striolis transversis creberrimis subcancellatis sculptâ; albido-stramineis, lineolis crebris undulatis longitudinalibus; pictâ; anfractu infimo supernè planulato; spirâ convexo-conicâ, subacutâ; aperturâ basi subangulosâ; supernè rotundatâ; labio subrecto, in medio subarcuato, supernè calloso; umbilico dilatato, profundo, spirali; canali lineari; funiculo lato, supernè crasso et obliquè truncato; labro fragili.*

Var.  $\beta$ . ? *Testâ minori, ventricosô-ovatâ, anfractibus senis, supernè planatis, gradatis, superioribus longitudinaliter striatis, infimo levigato, lineis spadiceis remotiusculis subundulatis picto; spirâ conico-acutâ; columellâ rectâ, supernè et infernè incrassatâ; canali umbilico profunde arcuato, valdè latiore; funiculo angustâ; aperturâ semi-oblongâ.*

*Hab.* "St. Elena, West Colombia; found in sandy mud at six fathoms." H. Cuming.

*Testâ tenuiori, sulcis longitudinalibus striæformibus; anfractu infimo transverso, anticè dilatato posticèque angustato, fasciis nullis, lineis spadiceis crebris undulatis angulatisque; spirâ minori; columellâ minus concavâ; funiculo crassiore à Naticâ Broderipianâ differt.*

*Var. β. Forma Natica Fanel Adansonii accedens sed diversa; an species nova?*

*Umbilicus testaceus, anticè triangulatus, in medio costâ latâ, crassâ, exsertâ, sulco anticè cinctâ et posticè revolutâ insculptus, areâ posticâ arcuatim sulcatâ. Margo postica transversim crenulata: crenis inferioribus valdè impressis.*

Long. 23 mill.; larg. 24 mill.; convex. 16 mill. *Ouverture*: long. 20 mill.; larg.  $11\frac{1}{2}$  mill.

6. *NATICA AREOLATA.* *Nat. testâ ventricosoglobosâ, tenui, parvâ, subpellucidâ, glaucinâ seu luteâ, lineis angulato-flexuosis, sæpè basi latoribus arcuatisque pictâ, ornatis; spirâ convexo-conicâ, apice fuscâ; aperturâ subviolacè; labio obliquè rectiusculo, ad umbilicum subconvexo, basim versus arcuatim rotundatâ; funiculo crasso, supernè rotundato, plano umbilicum canalemque valdè angustante.*

*Var. β. Testa minor, maculis luteis anticè albo marginatis ac arcuatis subseriebus 3-4-cincta, interdum confluentibus; anfractibus supernè zonâ dilutè aurantiâ lined albâ marginatâ ornatis.*

Rumph. Mus. tab. 22. fig. G. bona, non *Natica zebra*, Lamk.

*Hab.* "Island of Capul: found on the reefs, Philippines." H. Cuming. Amboina (Mus. Paris et Rumphius).

Long. 12 à 17 mill.; larg. 13 à 19 mill.; convex.  $10\frac{1}{2}$  à 15 mill. *Ouverture*: long.  $10\frac{1}{2}$  à  $14\frac{1}{2}$  mill.; larg. 6 à 9 mill. *Spire*, haut.  $4\frac{1}{2}$  à 7 mill.

7. *NATICA FULGURANS.* *Nat. testâ ovatâ, ventricosâ, tenuiter striatâ, albâ, flammeis fulgorantibus spadiceo-nigris interdum confluentibus pictâ; spirâ conicâ, acutâ; aperturâ albâ; columellâ obliquè, rectiusculâ, umbilico profundo; canali latiusculo; funiculo depresso, supernè basique compresso; labro basi obliquè rectiusculo, crasso, compresso.*

*Hab.* "Le Senegal (Mme Dupont)."

Long. 22 mill.; larg. 20 mill.; convex. 15-16 mill. *Ouverture*: long. 16 mill.; larg. 9 mill. *Spire*, haut. 9 mill.

*Testa alba seu dilutè ravidâ; flammis interruptis in zonas transversas efformantibus sæpè dispositis.*

8. *NATICA COLLEI.* *Nat. testâ ventricosoglobosâ, albâ, maculis spadiceo-fuscis quinque seriatis: seriebus duabus maculis rufis quadratis interdum angulatis alteris punctiformibus cinctâ; spirâ convexâ, apice acutâ; anfractibus supernè planiusculis, radiatim breviter striatis; aperturâ albidâ, intus subflammatâ; umbilico arcuato, profundo; funiculo parvo; columellâ obliquè rectiusculâ.*

Var.  $\beta$ . *Testa maculis quadratis quinque seriatis cincta; seriebus tribus medianis maculis majoribus interdum confluentibus; aperturâ intus roseâ; funiculo crasso extus ad sinistram obliquè planulato, basi canali propinquiori.*

*Hab.* "Swan River, Australia; found on stones, low water, by Lieut. Collie, R.N. Var. from the island of Ticao found on the reefs." H. Cuming.

Long. 14 var. 17 mill.; larg. 15 var. 16 mill.; convex.  $11\frac{1}{2}$  var. 13 mill. *Overture*: long.  $11\frac{1}{2}$  var. 13 mill.; larg. 7 var.  $7\frac{1}{2}$  mill.

# 9. NATICA FANEL, Adanson.

Var.  $\beta$ . *Testa alba, seu albo-subvinosa, maculis rotundatis atropurpureis, paucis interdum confluentibus picta.*

*Natica variolaria*, nobis olim.

*Hab.* "Zanzibar, east coast of Africa, collected by Mr. Thomas Thorre." H. Cuming.

*Testa subglobosa, ovata, ventricosa, nitidissima, lævigata. Anfractibus senis, convexis, supernè depresso-planis, radiatim tenuiter striatis, ferè gradatis. Spira conica; apice acutiusculo. Apertura semirotunda, alba, obliquata. Columella obliquè recta, angusta, supernè breviter reflexa, adnata, basi in labro continuato et incrassato. Umbilicum semirotundum, fuscum, profundum. Funiculum depressum, latiusculum, rufum, supernè vix callosum, semiovatum, columellæ adnatum. Operculum?*

10. NATICA GAMBLE. *Nat. testâ ventricoso-ovatâ, interdum subglobosâ, crassâ, albidâ seu dilutè carneolatâ; anfractibus convexis, lævigatis, supernè longè radiatim striatis, superioribus suprâ depresso-planiusculis; spirâ conico-depressâ, acutâ; aperturâ obliquâ, albâ; columellâ rectâ, supernè incrassatâ, callosâ; umbilico parvo; canali arcuato, profundo; funiculo magno, supernè dilatato, plano, semiovato; labro crasso.*

Var.  $\beta$ . *Testâ ovatâ, substriatâ, supernè cinereo-fuscescente, fusco obscurè zonatâ, infernè albidâ, submedio zonâ pallidâ cinctâ; spirâ glaucescente; aperturâ intus fusco-purpurascente.*

*Operculum testaceum, solidum, ad apicem tenuiusculum, lacteum, posticè marginem versus fuscum, lævigatum, anticè lined angustâ circumdatum. Varietates innumerae Naticæ maroccanæ Chemnitzii (Nat. marochiensis Lamk. non Menke nec Philippi, quæ est Nerita (Natica) glaucina Linné certè) differt, formâ, facie, consistentia, umbilico, funiculo et operculo. Rara.*

*Hab.* "River Gambia; found on the sands by Mr. Beale of Jersey." H. Cuming.

Long. 27 mill.; larg. 25 mill.; convex. 18 mill. *Overture*: long. 21 mill.; larg.  $10\frac{1}{2}$  mill. *Spire*, haut. 11 mill.

# 11. NATICA CANRENA, Lamk.

*Nerita canrena*, Linné, Mus. L. U. p. 674. no. 383. Synonymis et variet. exclusis.

Var.  $\beta$ . *Minor, tenuior, magnitudinis avellanæ, zonis tribus albis et totidem fuscis pallidis cincta; zonis albis medio ventris lineis*

*arcuatis spadiceis ornatis, superâ maculis spadiceis arcuatis pictâ; suturâ fasciâ angustâ luteâ marginatâ, striis radiatis crebris sculptâ; umbilico parvo; canali profundo, arcuato, zonâ latissimâ albâ circumdatâ et maculis spadiceis remotis notatâ.*

*Hab.* "Jacna, isle of Bohol, Philippines; twelve fathoms, sandy mud." H. Cuming.

An eadem ut typus Linnei?

*Var. γ. Testâ, omnino albâ, ad suturam lacteo fasciatâ; labro fragili.*

*Hab.* "Island of St. Vincent, North America." H. Cuming.

Long. 23 mill.; larg. 26 mill.; conv. 20 mill. *Ouverture*: long. 20; larg. 13 mill. *Spire*, haut. 9 mill.

12. *NATICA PAVIMENTUM. Nat. testâ ovato-obtusâ, subglobosâ, parvâ, exalbidd, lacteo-quadrifasciatâ, supremâ latâ lineis rufis radiatis, tribus inferioribus angustioribus maculis quadratis rufis seriatis articulatis pictâ; spirâ convexo-rotundatâ, parvâ, viz prominenti; aperturâ albâ, obliquâ; columellâ rectâ, solidâ; funiculo semi-rotundo, umbilico parvulo omnino occultante.*

*Var. β. Testâ fasciâ mediâ ventris maculis longitudinaliter oblongo-quadratis remotioribus pictâ.*

*Testâ anfractibus quinis, convexo-depressis, infimo convexiore; suturâ viz impressâ. Operculum?*

*Hab.* "The island of Ticao, Philippines; found on the reefs." H. Cuming.

Long. 10 mill.; larg. 9 mill.; conv. 7 à 7½ mill. *Ouverture*: long. 8 mill.; larg. 3½ mill.

13. *NATICA GUALTERIANA. Nat. testâ subovatâ, semigloboso-acutâ, tenui, subepidermide fusciscente albidd, punctis quadratis spadiceis seriatis in medio ventris trifasciatâ, supernè lineis concoloribus obsoletisque decurrentibus ornatâ; anfractibus ventricosis, ad suturam longè et crebrè striatis, fasciâ albâ circumdatâ; spirâ conico-acutâ; aperturâ dilatâ, basi subproductâ et angulosâ; umbilico parvo; funiculo semiovato, suprâ obliquè planò, umbilicum et canalem valdè occultantè.*

*Var. β. Testa minor, fasciis punctorum in medio ventris ultimi duabus.*

*Hab.* "Sual, province of Pangasinan, island of Luzon; found at five to seven fathoms, on sand." H. Cuming.

Long. 12½ mill.; larg. 12 mill.; conv. 9 mill. *Ouverture*: long. 10 mill.; larg. 6 mill. *Spire*, haut. 5 mill. *Natica maroccanæ* Chemnitzii proxima.

\*\* *Testa subovata seu ovata; operculum cartilagosum, Gen. Natica, Risso.*

#### MAMILLATÆ, Récluz.

14. *NATICA PANAMAËNSIS. Nat. testâ ovato-globosâ, ventricosâ, ponderosâ, albidd; anfractibus septenis, supremis depresso-convexis, infimo ad peripheriam depresso-planulato, suprâ subanguloso, declivi seu convexiusculo, striis tenuissimis impresso; spirâ conicâ,*

*acutâ; aperturâ obliquâ, oblongo-semilunari; columellâ supernè et anticè ventricosâ, valdè incrassatâ, calloso-lactèd, convexâ, sub umbilico productiusculâ; umbilico profundo; funiculo intûs sub-obsoleto, externè oblongo, calloso et cum callo columellæ consolidato; labro tenuiusculo.*

*Operculum cartilagineum, radiatim tenuiter striatum, dilutè fuscum. Sinu Panama propria.*

*Hab.* "Panama; found at ten fathoms in fine sand." H. Cuming.

Long. 44 à 54 mill.; larg. 40 à 47 mill.; convex. 33 à 40 mill.

*Ouverture*: long. exter. 40 à 47½ mill., inter. 33 à 40 mill.; larg. 18 à 22 mill. *Spire*, haut. 16 mill.

15. *NATICA FLEMINGIANA*. *Nat. testâ ovato-oblongâ, crassiusculâ, lactèd, nitidâ, politâ, lævissimè striatâ, anfractibus senis, depresso-convexiusculis, infimo ovato-convexo, supernè subconico; spirâ depresso-conicâ, apice exalbido; aperturâ angustâ, semirotundâ; columellâ obliquè rectiusculâ, in medio subconvexâ, externè callosâ, crassâ; umbilico profundo, supernè partim tecto, externè angulo viz notato circumdato, basi in canalem profundum arcuatum prolongato, à funiculo modificato.*

*Junior. Canali umbilico subconsolidato, lineari.*

*Operculum cartilagineum, luteum, tenuissimum, margine antico hyalino zonatum, fasciâ latâ, purpureo-rufâ, apice revolutâ, superficie eleganter radiatim striatâ valdè differt. Testa interdum albo dilutè straminea seu ferrugineo partim tincta.*

*Hab.* "Sorsogon, isle of Luzon; found in sand and small stones." H. Cuming.

Long. 30 mill.; larg. 26 mill.; convex. 22 mill. *Ouverture*: exter. 27 mill., inter. 19 mill.; larg. 11½ mill. *Spire*, haut. 9 mill.

*Nerita mamilla*, var. *lactea*, Linnæi valde affinis, sed spirâ acutâ et umbilico aperto differt. *Natica vavaoi* Le Guillou proxima, sed columellâ convexiore, basi et internè non angulatâ, rotundato-concavâ, angulo umbilici remotiore et lineæformi, canali umbilici angustiore et columellâ suprâ medium convexiusculâ transversim nec sulco obsoleto instructâ dissimilis est. *Natica uber*, Valenciennes, ferè simillima, sed in hac operculum cartilagineum omninò luteum et striis tenuioribus, in *Nat. Flemingianâ*.

16. *NATICA DUBIA*. *Nat. testâ ventricosò-ovatâ seu globoso-acutâ, levigatâ, crassâ, ponderosâ, albido-stramineâ, ad suturam obscurè fasciatâ et transversim obsoletè striatâ; spirâ conico-depressâ, plus minusve prominulâ, acutâ; aperturâ semirotundâ, intûs sub-margaritacèd; labio anticè recto, basi incrassato, supernè valdè calloso: callo suprâ medium convexo; umbilico spirali, in canalem profundum arcuatumque prolongatum et funiculo modificatum sive ferè sive omninò oblecto; labro solido.*

*Hab.* "Chili?" H. Cuming.

Long. 37 à 39 mill.; larg. 36 à 37 mill.; convex. 27 à 28 mill. *Ouverture*: exter. 32½ à 33, inter. 22 à 23 mill.; larg. 14 à 15½ mill. *Spire*, haut. 9 à 11½ mill.

*Natica Flemingianæ* proxima, sed solidiore, ventricosiore, ponde-

rosâ columellâ nec anticè convexâ, supernè valdè convexâ, umbilico interdum occultato, differt.

17. NATICA UBERINA, Valenciennes in Mém. Géol. de Humboldt.

Var.  $\beta$ . *Testâ ovato-conicâ, obsoletissimè cancellatâ; anfractibus supernè conicis; spirâ elongatâ, conicâ; canali umbilici et capite funiculi magis elongati.*

*Hab.* "Casma, Peru; found in muddy sand, five fathoms." H. Cuming.

Long.  $41\frac{1}{2}$  mill.; larg. 37 mill.; convex. 30 mill. *Ouverture*; long. exter. 31 mill.; inter. 26 mill.; larg. 16 mill.

18. NATICA CUMINGIANA. *Nat. testâ ovato-ventricosâ, luteo-aurantiâ, ponderosâ, supernè tenuiter et crebrè striatâ, nitidissimâ; anfractibus sensis conico-depressis, infimo ventricoso, suprâ lævissimè conico; spirâ conico-depressâ, acutâ, partim albâ; suturâ subobliteratâ; aperturâ oblongo-semilunari, albâ; columellâ lacted, rectiusculâ, in medio subconvexâ, supernè et externè incrassatâ, callosâ; umbilico patulo, spirali; canali largo, semirotondo, lacteo, bianguloso; angulo interno spirali, externo posticè carinato; funiculo lacteo, crasso, externè semirotondato, internè depresso, spirali, umbilicum modificante.*

*Junior.* *Testâ tenuiore, carneolatâ, spirâ lacted, angulis umbilici obsoletis; callo columellæ suprâ umbilicum sulco transverso notato, in adulto vix conspicuo.*

*Operculum rubicundum striis radiatum et tenuissimè longitudinaliter arcuatimque impressum, anticè zonâ hyalinâ circumdatum. Natica aurantia, var. lutea, nobis (Nerita mamilla, var. lutea, Linné), proxima sed ventricosiori, majori et umbilico patulo, funiculato, diversa est. Naticæ porcelanæ, D'Orbigny multò major, ventricosior, aurantia ac non stramine dissimilis.*

*Hab.* "Island of Cayo, Philippines; found in sandy mud, deep water." H. Cuming.

Long. 46 mill.; larg. 43 mill.; convex. 27 à 28 mill. *Ouverture*; long. exter. 42, inter. 32 mill.; larg. 18 mill. *Spire*, haut.  $15\frac{1}{2}$  mill.

*Junior.* *Naticæ fuscatae, nobis (Nerita mamma veneris fuscata seu lutea, Chemnitz, Conch., p. 282. pl. 189. f. 1932, 1933) accedens sed diversa.*

19. NATICA POWISIANA. *Nat. testâ ventricoso-ovatâ, crassâ, nitidâ, rufo-purpurascenle, interdum rufo obscurè fasciatâ anfractibus sensis convexo-depressis; infimo fasciâ suturali luted, latâ, ornato; spirâ conico-depressâ, albâ seu luteo tinctâ, acutâ; aperturâ semirotondâ, intûs albido-cinerascente; columellâ albâ, rectiusculâ, in medio subconvexâ, basi crassâ et obliquè rectâ, supernè callosâ; umbilico patulo, albo, spirali, in canalem latum extûs desinente; canali intûs subangulato, externè costulâ convexiusculâ, basin versus sensim crescente, supernè in umbilicum decurrente; funiculo semiovalo, plano, intûs convexiusculo.*

Var.  $\beta$ . *Testâ aurantio-rufescente.*

*Hab.* "Moluccas." H. Cuming.

Long. 35 à 40 mill.; larg. 35 à 44 mill.; convex. 28 à 34 mill.  
*Ouverture*: long. exter. 32 à 39 mill., inter. 24 à 31 mill.; larg. 15 à 19 mill. *Spire*, haut. 12 à 14 mill.

*Natica Cumingiana* valdè affinis, basi columellæ crassiori extùs oblique truncata, angulo externo umbilici costæformi, rotundato, obtuso et in perforatione decurrente, angulo interno canalis majore et depressiore, apertura semirotonda, anticè dilatata sed non oblonga, et supernè aucta differt.

20. *NATICA SALANGONENSIS*. *Nat. testd ovatd seu oblongd, cæruleo-fusca seu fulvd, substriatd; anfractibus quaternis depresso-convexis, supernè conicis et zond aurantiâ marginatis; spird conicd, obtusiusculd, pallidè cærulescente et albo fasciatd; aperturd semirotondd, fulvo-castaned; columellâ rectd, in medio vix convexd, suprâ crassd, supernè angulo transverso calloso instructd, ad umbilicum sulco notatd; umbilico profundo, coarctato, fulvo-aurantio; canali arcuato, largo, funiculo supernè oblongo, basi sensim attenuato modificato.*

*Operculum pallidè fulvum, radiatim striatum, tenue, et cartilagineum.* *Naticæ mamillaris, Lamk. (Natica fuscata, nobis) proxima sed diversa.*

*Hab.* "Salango, West Colombia; found in sandy mud." H. Cuming.

Long. 26 mill.; larg. 23 mill.; convex. 15 mill. *Ouverture*: long. exter. 24½ mill., inter. 20 mill.; larg. 4 à 5 mill.

21. *NATICA PYRIFORMIS*. *Nat. testd oblongo-pyriformi, lacted, substriatd, nitidd; anfractibus 5-6 convexiusculis, elongatis, supernè declivis: infimo ventricos-conico, supernè depresso; spird elongatd, conicd, apice puncto fusco-notatd; aperturd obliqud, subsemilunari, angustatd; columellâ rectiusculd, extùs supernè callosâ, basi cum funiculo suprâ compresso consolidatd, umbilico parvo, externè occultante et canali arcuato profundo angustante; labro tenuiusculo, subpellucido.*

*Spird interdum supernè lutescente. Anfractus ultimus sæpè tenuiter striatum: striis inter oculum et lumen hyalinis.*

*Hab.* "Ilo-Ilo, island of Panay; found on the sand at low water," H. Cuming: "and from Huan river, Australia; found in sandy mud by Lieut. Collie, R.N., ten fathoms."

22. *NATICA AURANTIA*, Lamk.

Var.  $\beta$ . *Lutea seu straminea*, *Nerita mamilla*, var. *lutea*, Linné, *Mus. Lud. Olr.* p. 675. no. 386. *Natica straminea, nobis olim.*  
*Natica sulphurea, quorundam.*

*Hab.* "Philippines; found on the reefs." H. Cuming. Var.  $\beta$ . *Amboina, Timor (Mus. Paris).*

B. *Umbilicum nudum, pervium, nec funiculatum.*

\* *Testa subglobosa, operculum cartilagineum.*

23. *NATICA VIOLACEA*, Sowerby, Tankerville Catal.  
*Natica amethystina*, Lamarck's collection.

Var.  $\beta$ . *Testâ globoso-ovatâ, ventricosâ, albâ seu lacteâ, maculis luteis seu dilutè chokolatis superioribus characteriformibus, medianis quadratis, inferioribus oblongis quinque seriatis pictâ; columellâ intûs et extûs pulchrè roseo-violacè.*

*Hab.* "Island of Ticao, Philippines; found in coral sand at four fathoms. Var.  $\alpha$ . from the island of Masbate, Philippines; sandy mud." H. Cuming.

24. *NATICA BURIASIENSIS.* *Nat. testâ parvulâ, ventricoso-globosâ, subepidermide luteo-olivaceo albâ, nitidâ, lævigatâ, lineis luteis longitudinalibus undulatis crebris, interdum maculis albis majoribus supernè et in medio ventris subtriseriatis pictâ; spirâ parvâ, subconicâ, acutâ; aperturâ semiotundâ, in fundo violacè; columellâ rectâ, basi crassiusculâ, supernè callosâ, callo fusco-rubente, suprâ umbilicum parvum, externè reflexum, curvum, et angulatum, partim occultante.*

Var.  $\beta$ . *Testâ ad suturam fasciâ albâ, latâ, spiram decurrente pictâ; spirâ apice fusco-violascente.*

*Operculum testaceum, album, striis obsoletis ornatum, posticè margine tenuiter crenatum, anticè lined elevatâ cinctum, apicem versus lævissimè callosum.*

*Natica intricata (Nerita intricata, Donovan) minor, minus globosa, umbilicus nec funiculatus differt.*

*Hab.* "Island of Burias, Philippines; found in sandy mud at seven fathoms." H. Cuming.

Long. 11 mill.; larg.  $11\frac{1}{2}$  mill.; conv.  $8\frac{1}{2}$ . *Ouverture*: long. exter.  $8\frac{1}{2}$ , inter. 6 mill.; larg. 4 mill. *Spire*, haut. 4 mill.

25. *NATICA RAYNOLDIANA.* *Nat. testâ subglobosâ, crassiusculâ, tenuissimè et densè striatâ, albâ seu dilutè aurantio-fulvâ, spadiceo trifasciatâ et sæpè reticulatâ; anfractibus spiræ depresso-convexis, infimo rotundato; spirâ depresso-conicâ, subacutâ, fuscâ; aperturâ semiotundâ, albâ; columellâ sybrectâ, utrinque arcuatâ, supernè callosâ, incrassatâ; callo albo, umbilicum extûs albo-zonatum, partim occultante.*

Var.  $\beta$ . *Testâ dilutè aurantio-fulvâ, spadiceo-trifasciatâ nec reticulatâ.*

Var.  $\gamma$ . *Testâ albâ seu albidâ maculis spadiceis triseriatis cinctâ interdum lineis reticulatâ, seu lineis confluentibus subflammulatâ.*

Var.  $\delta$ . ? *Testâ globoso-ovatâ, albâ seu pallidè aurantiâ, lineis reticulatis pictâ, nec fasciatâ.*

An *Nerita arachnoidea*, Gmelin, p. 3674. no. 17? Chemnitz, Conch. v. pl. 188. fig. 1915, 1916, optima (Mus. Paris), non *Natica arachnoidea*, Lamarck (*Natica cruentata*, var. *trifasciata*, nobis).

*Hab.* "Zanzebar, East Africa; found on the sands by Mr. T. Thorre. Cagayan, province of Misamis, island of Mindanao; found on sandy mud." H. Cuming. Trincomalee, bay of Ceylon, by M. Raynaud (Mus. Paris). Var.  $\delta$ . patriam ignoro.

Long. 24 mill.; larg. 27 mill.; conv. 21 mill. *Ouverture*: long. exter. 20 mill., inter. 15 mill.; larg. 10 mill. *Spire*, haut. 9 mill.



26. *NATICA GALLAPAGOSA*. *Nat. testâ globoso-acutâ, subepidermide dilutè olivaceo-albâ, fasciâ largâ carneo-rufescente aut viridescente, supernè fasciâ pallide rufâ cinctâ; anfractibus quinis subplanis: infimo ventricosâ, supernè declivi, planiusculâ; spirâ parvâ, conico-depressâ, rufo-fulvâ, acutâ; aperturâ semirotondâ, albâ, obliquâ; columellâ obliquè rectâ, supernè callosâ-angulatâ, ad umbilicûm parvum, partim occultante reflexâ.*

*Operculum cartilagineum, olivaceo-fuscum tenuissimè radiatim striatum, aperturâ testæ minus.*

*Hab.* "Gallapagos Islands; found in coral sand at Albemarle island." H. Cuming.

27. *NATICA PISIFORMIS*. *Nat. testâ minimâ, subglobosâ, albido-viridescente, subpellucidâ; anfractibus depressis, infimo ventricosâ, supernè sæpiùs subangulosâ, lævigatâ; spirâ depresso-conicâ seu planulatâ, vix essertâ; aperturâ semirotondâ; columellâ rectâ, supernè brevè reflexâ, adnatâ; umbilico punctiformi, subfuniculatâ.*

*Operculum cartilagineum, tenuiter radiatim striatum, lutescens, in medio rubicundum? Tale ego vidi in aperturâ eddem testæ.*

*Hab.* "Valparaíso, Chili; found in coarse sand at forty-five fathoms." H. Cuming.

Long. 5-6 mill.; larg. 5-5½; convex. 4-5 mill. *Overture*: long. exter. 4½-5 mill., inter. 3½-4 mill.; larg. 2-3 mill.

\*\* *Testâ ovato-acutâ, tenuiusculâ, sæpissimè zonatâ; columellâ nigro aut fusco-purpurascente pictâ; operculo cartilagineo, oblongo; aperturâ angustiore.*

28. *NATICA ZANZEBARICA*. *Nat. testâ ovato-oblongâ, tenui, subepidermide olivaceo-albâ, maculis fusco-purpureis elongatis interdum confluentibus trifasciatâ; anfractibus senis, convexis, tenuiter et crebrè striatis: penultimo maculis bifasciatâ, infimo ovato; spirâ conico-acutâ, albâ; apice fusco, minimo; aperturâ ovato-acutâ, columellâ suprâ umbilicûm adnatâ, reflexâ, fusco-purpurascente, anticè vix arcuatâ; umbilico profundo, extûs partim occultato.*

*Hab.* "Zanzibar." Mr. Thorre.

Long. 50 mill.; larg. 41 mill.; convex. 32 mill. *Overt.*: exter. 42, inter. 40 mill.; larg. 24 mill. *Spire*, haut. 16½ mill.

29. *NATICA PRIAMUS*. *Nat. testâ ovato-acutâ, ventricosâ, nitidissimâ, tenuè striatâ, zonâ pallidiore in medio cinctâ: zonâ lateraliter maculis spadiceis seriatis, sæpiùs remotis et quadratis marginatâ; spirâ parvâ, conico-acutâ, maculis fasciatâ, apice albo et puncto fusco notatâ; aperturâ ovatâ, basi et anticè dilatâtâ, albido-fusâ; columellâ suprâ umbilicûm adnatâ, chocolatâ, subarcuatâ, externè in medio albo unimaculatâ et reflexâ, umbilicûm profundum zonâ extûs decurrente rufâ partim occultante; funiculo valdè depresso, vix conspicuo, in umbilicûm continuato.*

*Var. β. pallidiore.*

*Hab.* "Moluccas," H. Cuming: Isle of France, M. Le Colonel Mathieu (Mus. Paris).

Long. 42 mill. ; larg. 40 mill. ; convex. 26 mill. *Ouverture* : long. 39 mill. ; larg. 22 mill.

*Natica maura*, Lamarck's Encyclop., Sowerby, Tankerville Cat., *proxima sed major, ventricosior, tenuior, fasciata, columella tenuior valde differt.*

30. NATICA SAMARENSIS. *Nat. testd ovato-acutd, albido et cærulescente longitudinaliter pallidè zonatd, fusco-spadiceo transversim quadrifasciatd : fasciarum maculis interdum flammæformibus aut confluentibus ; spirâ conico-acutd, albo cinctd ; aperturd ovatd, spadiceo-flammulatd ; columellâ omninè rufo-fuscd, subrectd, basi obtusè emarginatd, supernè reflexd, suprâ umbilicum externè aucitd ; umbilico ferè tecto, intus spadiceo.*

*Operculum cartilagineum, tenuiter radiato-striatum, angulo circulari in medio notatum, luteo-fuscescens, aperturd testæ mulid minus.*

*Hab.* "Catbalonga, island of Samar, Philippines ; under stones at low water." H. Cuming.

Long. 33 mill. ; larg. 25 mill. ; convex. 19 mill. *Ouverture* : long. exter.  $29\frac{1}{2}$ , inter. 26 mill. ; larg. 15 mill.

*Natica Simia*, Deshayes in Lamarck, An. s. vert. viii. p. 652. no. 45. (Lister, Conch. pl. 142. f. 36. *Ner. fasciatus è museo Oxoniensi*), *proxima, sed major, solidior, fasciis dissimilibus, columellâ omninè rufo-fuscd differt.*

31. NATICA SEBÆ, Souleyet, Voy. Bonite, pl. 35. fig. 6, 7. optime ; Seba Mus., iii. pl. 41. f. 21. optima.

*Var. β. Testd tenui, subepidermide stramineo, exalbidd, anfractibus supernè lacteo marginatis, columellâ et umbilico rufo-fuscis.*

*Operculum tenue, rubrum, longitudinaliter creberrimè transversim radiatim valde striatum.*

*Hab.* "St. Nicolas, island of Zebu, Philippines ; found under stones. This species is remarkable for the smallness of the operculum ; the animal covers a part of the shell when at rest." H. Cuming.

*Var. β.* "Loon, isle of Bohol, Philippines ; found under stones." H. Cuming.

December 26th, 1843.

No Meeting was held.

# INDEX.

The names of New Species and of Species newly characterized are printed in Roman Characters: those of Species previously known, but respecting which novel information is given, in *Italics*: those of Species respecting which Anatomical Observations are made, in CAPITALS.

	Page		Page
<i>Acanthidium calceus</i> .....	93	<i>Blennius trigloides</i> , Cuv. & Val. ....	87
<i>pusillum</i> .....	93	<i>Blepharis</i> .....	86
<i>Acantholabrus imbricatus</i> .....	87	<i>Brama longipinnis</i> , <i>Lowe</i> .....	82, 83
<i>Agelaius curaceus</i> , Mol. ....	113	<i>longipinnis</i> , <i>Lowe</i> .....	89
<i>Agriornis gutturalis</i> , Gould .....	111	<i>Raii</i> , Bl. ....	82
<i>maritimus</i> , G. R. Gray .....	111	<i>Brosimius</i> .....	91
<i>Alcedo leucocephala</i> , Lath. ....	103	<i>Bubo Virginianus</i> , Wilson .....	110
<i>Anas Bahamensis</i> ? Linn. ....	119	<i>Buccinum aciculatum</i> , Lam. ....	165
<i>chalcoptera</i> , Kittl. ....	119	<i>acus</i> , Chemn. ....	168
<i>Rafflesii</i> , Vig. ....	118	<i>Australe</i> , Sow. ....	168
<i>specularis</i> , King .....	119	<i>Bellangeri</i> , Kiener .....	168
<i>Anatina costata</i> , Sow. ....	77	<i>bifasciatum</i> , Petiver .....	168
<i>longirostris</i> , Lam. ....	76	<i>candidum</i> , Born .....	165
<i>Anser melanopterus</i> , Eyton .....	118	<i>cinereum</i> , Born .....	165
<i>Anthus correndera</i> , Vieill. ....	112	<i>commaculatum</i> , Gmel. ....	163
Gouldii, <i>Fraser</i> .....	27	<i>concinnum</i> , Gualt. ....	168
Antigonia, <i>Lowe</i> .....	85	<i>crenulatum</i> , Linn. ....	160
Antigonia capros, <i>Lowe</i> .....	86	<i>dimidiatum</i> , Linn. ....	160
Apteryx .....	8	<i>duplicatum</i> , Gmel. ....	161
<i>Arctibeus Jamaicensis</i> , Leach .....	50	<i>felinum</i> , Dillw. ....	160
<i>Ardea Cerei</i> ? Linn. ....	116	<i>ferrugineum</i> , Born .....	160
<i>cianocephala</i> , Mol. ....	116	<i>fuscatum</i> , Brocchi .....	166
<i>major</i> ? Mol. ....	116	<i>geminum</i> , Linn. ....	168
<i>rectirostris</i> , <i>Gould</i> .....	22	<i>hastatum</i> , Gmel. ....	161
<i>Thula</i> , Mol. ....	116	<i>hecticum</i> , Gmel. ....	168
<i>Argyreosis</i> .....	86	<i>lanceatum</i> , Gmel. ....	165
<i>Astroderma plumbeum</i> , <i>Lowe</i> .....	83	<i>lineolatum</i> .....	168
<i>coryphæoides</i> , Bon. ....	83	<i>maculatum</i> , Linn. ....	159
<i>Astur uncinatus</i> , Temm. ....	109	<i>monile</i> , Linn. ....	168
<i>Athene cunicularia</i> .....	109	<i>murinum</i> , Linn. ....	168
<i>ferox</i> , Vieill. ....	109	<i>pertusum</i> , Born .....	161
<i>Aulopus</i> , Cuv. ....	88, 89	<i>phallus</i> , Chemn. ....	168
<i>Aulopus Cuvieri</i> , Risso .....	84	<i>politum</i> , Lam. ....	168
<i>Avicula margaritifera</i> .....	196	<i>proximatum</i> , Linn. ....	168
<i>Bellongia campestris</i> , <i>Gould</i> .....	81	<i>scalarium</i> , Sow. ....	168
<i>Blennius palmicornis</i> , Cuv. & Val. ....	86	<i>sinuatum</i> , Linn. ....	168
<i>parvicornis</i> , <i>Lowe</i> .....	86	<i>strigilatum</i> , Gmel. ....	163, 165
<i>strigata</i> .....	86	<i>subulatum</i> , Linn. ....	161

	Page		Page
<i>Buccinum succinctum</i> , Chemn. ....	168	<i>Centronotus</i> .....	128
<i>Tahitensis</i> , Gmel. ....	168	<i>Centrophorus calceus</i> , Lowe .....	93
<i>Tigrinum</i> , Gmel. ....	160	<i>Centropus Senegalensis</i> , Swains. ....	53
<i>vittatum</i> , Linn. ....	168	<i>Cercopithecus lunulatus</i> , Kuhl. ....	122
<i>Bucco subsulphureus</i> , Fraser .....	3	<i>Ceryle torquata</i> , Gmel. ....	110
<i>Bullia vittata</i> , Gray .....	168	<i>CHÆTOMYS</i> , Gray .....	21
<i>Buteo erythronotus</i> , King .....	109	<i>Charadrius rubecola</i> , King .....	118
<i>Cactornis inornatus</i> , Gould .....	104	<i>Virginianus</i> , Wilson .....	118
<i>CAMELUS BACTRIANUS</i> .....	50	<i>Chauliodes</i> .....	88
<i>Cancellaria antiquata</i> , Hinds .....	49	<i>Chilonycteris</i> .....	20
<i>bicolor</i> , Hinds .....	48	<i>Chilonycteris fuliginosus</i> , Gray .....	20
<i>candida</i> .....	47	<i>MacLeayi</i> .....	20
<i>corrugata</i> , Hinds .....	48	<i>Chiton biradiatus</i> , G. B. Sow. ....	102
<i>cremata</i> , Hinds .....	48	<i>Janierensis</i> .....	102
<i>elata</i> , Hinds .....	48	<i>Chlophaga Magellanica</i> , Eyton .....	118
<i>funiculata</i> , Hinds .....	48	<i>Chrysometris campestris</i> , Gould .....	112
<i>lamellosa</i> , Hinds .....	49	<i>Magellanicus</i> , Bonap. ....	113
<i>rigida</i> , Sow. ....	49	<i>Ciconia Maguari</i> .....	116
<i>trigonostoma</i> .....	49	<i>Pillus</i> , Mol. ....	116
<i>urceolata</i> , Hinds .....	47	<i>Circus cinereus</i> , Vieill. ....	109
<i>ventricosa</i> , Hinds .....	47	<i>Clavatula</i> , Lam. ....	38
<i>Caprimulgus bifasciatus</i> , Gould .....	110	<i>Clavatula albicans</i> , Hinds .....	43
<i>Caproide</i> .....	83, 85	<i>amabilis</i> , Hinds .....	40
<i>Capros Aper</i> , Lacep. ....	85	<i>argillacea</i> , Hinds .....	40
<i>Caranx luna</i> , Geoff. ....	84	<i>aspera</i> , Hinds .....	40
<i>Carcharias falcipinnis</i> .....	93	<i>bella</i> , Hinds .....	41
<i>microps</i> .....	93	<i>candida</i> , Hinds .....	42
<i>(Prionodon) Henlei</i> , Müll. & H. ....	93	<i>cincta</i> , Sow. ....	38
<i>(Prionodon) obscurus</i> , Müll. & H. ....	93	<i>cineraria</i> , Hinds .....	40
<i>(Prionodon) melanopterus</i> , Quoy		<i>cœlata</i> , Hinds .....	42
& Gaimard .....	93	<i>crebricostata</i> , Hinds .....	41
<i>Sorrah</i> , Val., Müll., Henl. ....	93	<i>crenularis</i> , Lam. ....	38
<i>Cardita angiculata</i> , Reeve .....	193	<i>debilis</i> , Hinds .....	39
<i>borealis</i> .....	194	<i>dentifera</i> , Hinds .....	44
<i>canaliculata</i> , Reeve .....	193	<i>donata</i> , Hinds .....	43
<i>Cardioides</i> , Reeve .....	194	<i>duplicata</i> , Sow. ....	38
<i>compressa</i> , Reeve .....	194	<i>ericea</i> , Hinds .....	39
<i>distorta</i> , Reeve .....	192	<i>felina</i> , Hinds .....	42
<i>fabula</i> , Reeve .....	195	<i>fimbriata</i> , Hinds .....	43
<i>flabellum</i> , Reeve .....	194	<i>flammea</i> , Hinds .....	42
<i>gibbosa</i> , Reeve .....	192	<i>flavidula</i> , Lam. ....	38
<i>gubernaculum</i> , Reeve .....	191	<i>fulva</i> , Hinds .....	44
<i>lacunosa</i> , Reeve .....	193	<i>glumacea</i> , Hinds .....	44
<i>marmorea</i> , Reeve .....	191	<i>impressa</i> , Hinds .....	44
<i>naviformis</i> , Reeve .....	194	<i>læta</i> , Hinds .....	41
<i>nitida</i> , Reeve .....	192	<i>luctuosa</i> , Hinds .....	40
<i>nodulosa</i> , Reeve .....	194	<i>merita</i> , Hinds .....	42
<i>ovalis</i> , Reeve .....	193	<i>metula</i> , Hinds .....	44
<i>pectunculus</i> , Reeve .....	192	<i>micans</i> , Hinds .....	43
<i>pica</i> , Reeve .....	191	<i>militaris</i> , Hinds .....	38
<i>radula</i> , Reeve .....	191	<i>mutica</i> , Hinds .....	43
<i>semen</i> , Reeve .....	193	<i>neglecta</i> , Hinds .....	45
<i>Senegalensis</i> , Reeve .....	192	<i>nitens</i> , Hinds .....	41
<i>tegulata</i> , Reeve .....	194	<i>occata</i> , Hinds .....	41
<i>trapezia</i> .....	194	<i>papillaris</i> , Hinds .....	42
<i>volucris</i> , Reeve .....	192	<i>Pardalis</i> , Hinds .....	42
<i>Cathartes atratus</i> , Swains. ....	108	<i>plumbea</i> , Hinds .....	41
<i>Iota</i> , Mol. ....	108	<i>polita</i> , Hinds .....	43
<i>monachus</i> , Temm. ....	51	<i>pudica</i> , Hinds .....	41
<i>Centrinida</i> .....	93	<i>Pyramis</i> , Hinds .....	42

	Page		Page
<i>Clavatula quisqualis</i> , <i>Hinds</i> .....	44	<i>Conus lentiginosus</i> , <i>Reeve</i> .....	177
<i>rara</i> , <i>Hinds</i> .....	39	<i>lignarius</i> , <i>Reeve</i> .....	13
<i>retusa</i> , <i>Hinds</i> .....	44	<i>lignarius</i> , <i>Reeve</i> .....	180
<i>rigida</i> , <i>Hinds</i> .....	45	<i>liratus</i> , <i>Reeve</i> .....	181
<i>robusta</i> , <i>Hinds</i> .....	39	<i>lividus</i> .....	178
<i>rubida</i> , <i>Hinds</i> .....	40	<i>magnificus</i> , <i>Reeve</i> .....	13
<i>rubiginosa</i> , <i>Hinds</i> .....	43	<i>mahogani</i> , <i>Reeve</i> .....	169
<i>scalaris</i> , <i>Hinds</i> .....	39	<i>Martinianus</i> , <i>Reeve</i> .....	173
<i>sculpta</i> , <i>Hinds</i> .....	39	<i>mercator</i> , <i>Auct.</i> .....	173
<i>Sinensis</i> , <i>Hinds</i> .....	39	<i>Metcalfi</i> , <i>Reeve</i> .....	171
<i>spicata</i> , <i>Hinds</i> .....	39	<i>minutus</i> , <i>Reeve</i> .....	179
<i>spurca</i> , <i>Hinds</i> .....	39	<i>Neptunus</i> , <i>Reeve</i> .....	13
<i>tessellata</i> , <i>Hinds</i> .....	44	<i>nitidus</i> , <i>Reeve</i> .....	180
<i>textilis</i> , <i>Hinds</i> .....	43	<i>nivosus</i> .....	177
<i>Clupea laticostata</i> , <i>Lowe</i> .....	90	<i>orbitatus</i> , <i>Reeve</i> .....	170, 173
<i>Leachii</i> , <i>Yarrell</i> .....	90	<i>Parius</i> , <i>Reeve</i> .....	175
<i>Clupeidae</i> .....	89, 90	<i>pictus</i> , <i>Reeve</i> .....	168
<i>Coccyzus ferrugineus</i> , <i>Gould</i> .....	105	<i>piperatus</i> , <i>Reeve</i> .....	175
<i>Collurio Smithii</i> , <i>Fraser</i> .....	16	<i>plumbeus</i> , <i>Reeve</i> .....	178
<i>Columba Boliviana</i> , <i>D'Orb.</i> .....	115	<i>pygmæus</i> , <i>Reeve</i> .....	179
<i>Fitzroyi</i> , <i>King</i> .....	115	<i>radiatus</i> , <i>Chemn.</i> .....	172
<i>Columbina strepitans</i> , <i>Spix</i> .....	115	<i>scalptus</i> , <i>Reeve</i> .....	172
<i>Conurus cyanolysios</i> , <i>Mol.</i> .....	114	<i>sendon</i> , <i>Reeve</i> .....	175
<i>CONUS</i> , <i>genus</i> , <i>Auct.</i> .....	168	<i>spectrum</i> .....	174
<i>Conus aculeiformis</i> , <i>Reeve</i> .....	176	<i>Stainforthii</i> , <i>Reeve</i> .....	12
<i>æmulus</i> , <i>Reeve</i> .....	179	<i>sugillatus</i> , <i>Reeve</i> .....	177
<i>ambiguus</i> , <i>Reeve</i> .....	177	<i>sulcatus</i> .....	173
<i>aplustre</i> , <i>Reeve</i> .....	171	<i>aturatus</i> , <i>Reeve</i> .....	178
<i>Archiepiscopus</i> .....	173	<i>tabidus</i> , <i>Reeve</i> .....	177
<i>attenuatus</i> , <i>Reeve</i> .....	180	<i>teres lævis</i> , <i>Mart.</i> .....	173
<i>bæticus</i> , <i>Reeve</i> .....	174	<i>textile</i> , <i>Lam.</i> .....	173
<i>Broderipii</i> , <i>Reeve</i> .....	179	<i>tristis</i> , <i>Reeve</i> .....	178
<i>bulbus</i> , <i>Reeve</i> .....	171	<i>trochulus</i> , <i>Reeve</i> .....	177
<i>buxeus</i> , <i>Reeve</i> .....	180	<i>ustulatus</i> , <i>Reeve</i> .....	176
<i>canonicus</i> .....	172	<i>verriculum</i> , <i>Reeve</i> .....	173
<i>castus</i> , <i>Reeve</i> .....	180	<i>vicarius</i> , <i>Lam.</i> .....	173
<i>Clerii</i> , <i>Reeve</i> .....	175	<i>Victoriæ</i> , <i>Reeve</i> .....	172
<i>cocceus</i> , <i>Reeve</i> .....	174	<i>vidua</i> , <i>Reeve</i> .....	79, 169
<i>columba</i> .....	176	<i>violaceus</i> , <i>Reeve</i> .....	176
<i>conspersus</i> , <i>Reeve</i> .....	180	<i>Corbula</i> , <i>Bruguière</i> .....	55
<i>crepusculum</i> , <i>Reeve</i> .....	178	<i>Corbula albuginosa</i> , <i>Hinds</i> .....	56
<i>cuneolus</i> , <i>Reeve</i> .....	173	<i>costellata</i> , <i>Deshayes</i> .....	77
<i>daucus</i> .....	181	<i>crassa</i> , <i>Hinds</i> .....	55
<i>Deshayesii</i> , <i>Reeve</i> .....	168	<i>cuneata</i> , <i>Hinds</i> .....	55
<i>elongatus</i> , <i>Reeve</i> .....	170	<i>faba</i> , <i>Hinds</i> .....	59
<i>epistomium</i> , <i>Reeve</i> .....	174	<i>fasciata</i> , <i>Hinds</i> .....	58
<i>erythræensis</i> .....	175	<i>fragilis</i> , <i>Hinds</i> .....	56
<i>exaratus</i> , <i>Reeve</i> .....	176	<i>eburnea</i> , <i>Hinds</i> .....	58
<i>furvus</i> , <i>Reeve</i> .....	79	<i>lævis</i> , <i>Hinds</i> .....	59
<i>geographus</i> , <i>var.</i> , <i>Brod.</i> .....	170	<i>marmorata</i> , <i>Hinds</i> .....	58
<i>Grayi</i> , <i>Reeve</i> .....	179	<i>modesta</i> , <i>Hinds</i> .....	57
<i>Grüneri</i> , <i>Reeve</i> .....	175	<i>monilis</i> , <i>Hinds</i> .....	58
<i>Guinaicus</i> .....	179	<i>obesa</i> , <i>Hinds</i> .....	57
<i>incarnatus</i> , <i>Reeve</i> .....	174	<i>pallida</i> , <i>Hinds</i> .....	55
<i>inscriptus</i> , <i>Reeve</i> .....	171	<i>polita</i> , <i>Hinds</i> .....	57
<i>intermedius</i> , <i>Reeve</i> .....	168	<i>quadrata</i> , <i>Hinds</i> .....	57
<i>iodostoma</i> , <i>Reeve</i> .....	170	<i>radiata</i> , <i>Sow.</i> .....	57
<i>Janus</i> .....	170	<i>rostrata</i> , <i>Deshayes</i> .....	76
<i>lacteus</i> , <i>var. ? Lam.</i> .....	173	<i>rotalis</i> , <i>Hinds</i> .....	56
<i>lautus</i> , <i>Reeve</i> .....	179	<i>scaphoides</i> , <i>Hinds</i> .....	56

	Page		Page
<i>Corbula similis</i> , Hinds .....	56	<i>Cyclostoma translucidum</i> , G. B. Sow. ....	29
<i>solidula</i> , Hinds .....	58	<i>Cygnus nigricollis</i> .....	118
<i>speciosa</i> , Hinds .....	57	<i>Cynocephalus</i> .....	10
<i>trigona</i> , Hinds .....	58	<i>Cynocephalus Anubis</i> .....	10
<i>tunicata</i> , Hinds .....	55	<i>choras</i> , Ogilby .....	12
<i>Coriocellus</i> , Blainv. ....	137	<i>hamadryas</i> .....	10
<i>Corsira Temlyas</i> .....	79	<i>sphinx</i> .....	10
<i>tropicalis</i> .....	79	<i>Thoth</i> , Ogilby .....	11
<i>Coryphæna velifera</i> , Pall. ....	83	<i>Cypræa leucostoma</i> , Gask. ....	23
<i>Coryphænidæ</i> .....	82	<i>Mus</i> , Linn. ....	25
<i>Coryphilus Dryas</i> .....	103	<i>Saulæ</i> , Gask. ....	23
<i>Crenilabrus tuscus</i> .....	87	<i>Cypricardia</i> , Genus .....	195
<i>Cricetomys Gambianus</i> , Waterh. ...	51	<i>Cypricardia coralliophaga</i> .....	196
<i>Crithagra? brevirostris</i> , Gould .....	112	<i>decussata</i> , Reeve .....	195
<i>Cubiceps</i> .....	82	<i>Guinaica</i> .....	196
<i>Cuculus rubiculus</i> , Swains. ....	52	<i>incarnata</i> , Reeve .....	195
<i>Cuspidaria</i> , Nardo .....	76	<i>laminata</i> , Reeve .....	196
<i>Cyanotis omnicolor</i> , Swains. ....	112	<i>obesa</i> , Reeve .....	196
<i>Cyclostoma</i> .....	29, 59, 46	<i>serrata</i> , Reeve .....	195
<i>Cyclostoma acuminatum</i> , G. B. Sow. ....	65	<i>Solenoides</i> , Reeve .....	196
<i>aquilum</i> , G. B. Sow. ....	61	<i>vellicata</i> , Reeve .....	195
<i>atricapillum</i> , G. B. Sow. ....	64	<i>vellicata</i> , Reeve .....	197
<i>Brasilensis</i> , G. B. Sow. ....	29	<i>Cyprinidæ</i> .....	89
<i>ciliatum</i> , G. B. Sow. ....	65	<i>Daption Capensis</i> , Steph. ....	119
<i>Cincinnus</i> , G. B. Sow. ....	60	<i>Delphinula adamantina</i> , Duclos .....	142
<i>clathratulum</i> , G. B. Sow. ....	30	<i>cidaris</i> , Reeve .....	143
<i>concinnum</i> , G. B. Sow. ....	61	<i>clathrata</i> , Reeve .....	143
<i>corrugatum</i> , G. B. Sow. ....	30	<i>Cobjensis</i> , Reeve .....	143
<i>fibula</i> , G. B. Sow. ....	62	<i>depressa</i> , Reeve .....	142
<i>fulvescens</i> , G. B. Sow. ....	63	<i>discoidea</i> , Reeve .....	142
<i>giganteum</i> , G. B. Sow. ....	30	<i>evoluta</i> , Reeve .....	142
<i>goniostoma</i> , G. B. Sow. ....	64	<i>muricata</i> , Reeve .....	142
<i>Helicoides</i> , G. B. Sow. ....	65	<i>Peronii</i> .....	142
<i>immaculatum</i> , Chemn. ....	63	<i>Scalaroides</i> , Reeve .....	141
<i>insigne</i> , G. B. Sow. ....	62	<i>sydereæ</i> , Reeve .....	143
<i>irroratum</i> , G. B. Sow. ....	61	<i>varicosa</i> , Reeve .....	142
<i>lave</i> , Gray .....	63	<i>Dendrodrampus leucosternon</i> , Gould... 112	
<i>linguiferum</i> , G. B. Sow. ....	31	<i>Diana semilunata</i> , Risso .....	84
<i>lingulatum</i> , G. B. Sow. ....	64	<i>Diaphasia</i> .....	92
<i>Listeri</i> , G. B. Sow. ....	31	<i>Diaphasia acus</i> .....	92
<i>luteostoma</i> , G. B. Sow. ....	62	<i>Didelphys</i> .....	132
<i>maculosum</i> , G. B. Sow. ....	66	<i>Didelphys elegans</i> .....	132
<i>minus</i> , G. B. Sow. ....	65	<i>ineptus</i> .....	145
<i>mucronatum</i> , G. B. Sow. ....	63	<i>Quica</i> .....	79
<i>nitidum</i> , G. B. Sow. ....	60	<i>Dinornis didiformis</i> , Owen .....	144
<i>Panayense</i> , G. B. Sow. ....	62	<i>dromæoides</i> , Owen .....	145
<i>parvum</i> , G. B. Sow. ....	66	<i>giganteus</i> , Owen .....	145
<i>perplexum</i> , G. B. Sow. ....	63	<i>Novæ-Zelandiæ</i> , Owen .....	8
<i>pileus</i> , G. B. Sow. ....	31	<i>otidiformis</i> , Owen .....	145
<i>plebeium</i> , G. B. Sow. ....	60	<i>Struthoides</i> , Owen .....	144, 145
<i>pusillum</i> , G. B. Sow. ....	59	<i>Diodon reticulatus</i> .....	93
<i>rugulosum</i> , G. B. Sow. ....	29	<i>rivulatus</i> .....	93
<i>rufescens</i> , G. B. Sow. ....	60	<i>tigrinus</i> .....	93
<i>semistriatum</i> , G. B. Sow. ....	29	<i>Diodontidæ</i> .....	93
<i>semisulcatum</i> , G. B. Sow. ....	62	<i>Diomedea culminata</i> , Gould .....	107
<i>spurcum</i> , G. B. Sow. ....	60	<i>Diplopterus Guira</i> , Gray .....	121
<i>stramineum</i> , Reeve .....	46	<i>Donax carinata</i> , Hanley .....	5
<i>substriatum</i> , G. B. Sow. ....	61	<i>dentifera</i> , Hanley .....	6
<i>suturale</i> , G. B. Sow. ....	29	<i>pulchella</i> , Hanley .....	6
<i>tigrinum</i> , G. B. Sow. ....	30	<i>punctato-striata</i> , Hanley .....	5

	Page		Page
<i>Donax semisulcata</i> , Hanley .....	5	<i>Himantopus nigricollis</i> , Vieill. ....	117
<i>Drymoica lateralis</i> , Fraser .....	16	<i>Hirundo leucopygia</i> , Licht. ....	110
<i>mentalis</i> , Fraser .....	16	<i>leucosoma</i> , Swains. ....	51
<i>rufa</i> , Fraser .....	17	<i>Hypsiprymnus</i> .....	73
<i>ruficapilla</i> , Fraser .....	16	<i>Hystericida</i> .....	20
<i>rufogularis</i> , Fraser .....	17	<i>Hystrix subspinosus</i> .....	21
<i>Strangei</i> , Fraser .....	16	<i>Icterus Thilius</i> , Mol. ....	113
<i>uropygialis</i> , Fraser .....	17	<i>Ipida bicincta</i> , Swains. ....	51
<i>Eburna monilis</i> , Schumacher .....	168	<i>Labridæ</i> .....	87
<i>Echiostoma</i> , Lowe .....	87	<i>Lagotis pallipes</i> , Bennett .....	132
<i>Echiostoma barbatum</i> , Lowe .....	88	<i>Lampris</i> .....	84
<i>Elanus dispar</i> .....	109	<i>Lamprotornis chrysonotus</i> , Swains. ...	52
<i>Elasmatina Cumingiana</i> , Pet. de la		<i>Larus brachyrhynchus</i> , Gould .....	106
<i>Sauss.</i> .....	2	<i>dominicans</i> , Licht. ....	119
<i>globosa</i> , Pet. de la Sauss. ....	3	<i>Leiodomus vittata</i> , Swains. ....	168
<i>Reclusiana</i> , Pet. de la Sauss. ...	2	<i>Leipoa</i> .....	81
<i>subulata</i> , Pet. de la Sauss. ....	2	<i>Lepidoleprus caelorhynchus</i> , Risso ...	92
<i>Emberiza luteocephala</i> , D'Orb. ....	113	<i>Lepus Hibernicus</i> , Yarr. ....	75
<i>Enoplosom</i> , Lacep. ....	85	<i>Leucosticte griseogenys</i> , Gould .....	104
<i>Equula</i> .....	86	<i>tephrocotis</i> , Swains. ....	104
<i>Erismatura ferruginea</i> , Eyton ....	119	<i>Lichenops</i> .....	120
<i>Erycina cuspidata</i> , Risso .....	76	<i>Lichenops erythropterus</i> , Gould .....	110
<i>Esocida</i> , Pet. de la Sauss. ....	87, 89	<i>perspicillata</i> , G. R. Gray .....	110
<i>Esox</i> .....	88	<i>Lima</i> .....	23
<i>Estrilda rufopicta</i> , Fraser .....	27	<i>Lima angulata</i> , Sow. jun. ....	23
<i>Eudromia elegans</i> , D'Orb. ....	116	<i>Bullata</i> , Turton .....	23
<i>Falco anatum</i> , Bonap. ....	109	<i>Cumingii</i> , G. B. Sow. ....	23
<i>femoralis</i> , Temm. ....	109	<i>fragilis</i> , Chemn. ....	23
<i>Fierasfers</i> , Cuv. ....	92	<i>Loscombii</i> , Leach .....	23
<i>Fluvicola cyanirostris</i> , D'Orb. ....	120	<i>Limosa Hudsonica</i> , Swains. ....	118
<i>Fringilla alaudina</i> , Kittl. ....	113	<i>Loranthus tetrandrus</i> .....	115
<i>Diuca</i> , Mol. ....	113	<i>Loxonema</i> , Phill. ....	167
<i>fruticeti</i> , Kittl. ....	113	<i>Luvarus imperialis</i> , Raffl. ....	84
<i>Gayi</i> , Edoy. & Gerv. ....	113	<i>Macroglossus minimus</i> .....	67
<i>Fulica galeata</i> , G. R. Gray .....	118	<i>Macronyx flavigaster</i> , Swains. ....	51
<i>Fusus pagodus</i> , Less. ....	185	<i>Macrophyllum</i> .....	20
<i>Scalarinus</i> , Deshayes .....	168	<i>Macrotis</i> .....	50
<i>Gadella gracilis</i> , Lowe .....	91	<i>Macrotus</i> , n. g. ....	21
<i>Gadida</i> .....	90	<i>Macrotus Waterhousii</i> , Gray .....	21
<i>Gallichthys</i> .....	86	<i>Macrouridæ</i> .....	91
<i>Gallinula crassirostris</i> , J. E. Gray ...	118	<i>Macrourus Atlanticus</i> , Lowe .....	92
<i>Geositta (Furnarius) canicularia</i> , G.		<i>laevis</i> , Lowe .....	92
<i>R. Gray</i> .....	111	<i>rupestris</i> , Bloch .....	92
<i>Gerre Plumieri</i> , Cuv. et Val. ....	86	<i>serratus</i> , Lowe .....	91
<i>Glareola cinerea</i> , Fraser .....	26	<i>Mamillatæ</i> , Récluz .....	208
<i>lactea</i> , Temm. ....	26	<i>Mangelia</i> , Leach .....	45
<i>torquata</i> , Temm. ....	53	<i>Mangelia celebensis</i> , Hinds .....	46
<i>Gobida</i> .....	86	<i>cinnamomea</i> , Hinds .....	45
<i>Hæmatopus niger</i> , Temm. ....	116	<i>coronata</i> , Hinds .....	45
<i>palliatu</i> , Temm. ....	116	<i>Goodalii</i> , Leach .....	45
<i>Halcyon cyanotis</i> , Swains. ....	5	<i>oryza</i> , Hinds .....	46
<i>leucogaster</i> , Fraser .....	4	<i>vittata</i> , Hinds .....	45
<i>saurophaga</i> , Gould .....	103	<i>Manis</i> .....	20
<i>Haliaëtus Agtia</i> , Temm. ....	108	<i>Manis multiscutata</i> , Gray .....	22
<i>Harpiprion Cayanensis</i> ( <i>Ibis Falcinel-</i>		<i>multiscutata</i> , Gray .....	53
<i>lus</i> , Ord), Bonap. ....	117	<i>tetradactyla</i> .....	22, 53
<i>Herodias Galatea</i> , Mol. ....	116	<i>Mareca Chiloensis</i> , Eyton .....	119
<i>leuce</i> .....	116	<i>Mesodesma complanatum</i> .....	102
<i>Heteromys Desmarestiana</i> .....	79	<i>planum</i> , Hanley .....	102
<i>Hiaticula bifasciata</i> .....	118	<i>triquetrum</i> , Hanley .....	101

	Page		Page
Megaderma .....	69	<i>Mustela frenata</i> , Licht. ....	79
<i>Megaderma Lyra</i> .....	69	<i>Mya rostrata</i> , Chemn. ....	76
<i>Philippinensis</i> , Waterh. ....	69	<i>semistriata</i> , Hanley .....	6
<i>trifolium</i> , Geoff. ....	69	<i>Myiobius albiceps</i> , G. R. Gray .....	110
Megalornis, Owen .....	19	<i>parvirostris</i> , Gould .....	110
<i>Melania arcuata</i> .....	167	<i>Myopotamus Coypus</i> , Auct. ....	129
<i>Merganetta armata</i> , Gould .....	119	<i>Myrmecobius</i> .....	148
<i>Merlucius vulgaris</i> , Cuv. ....	90	<i>Narica</i> , Récluz .....	136
<i>Merria</i> , Gray .....	136	<i>Narica Blainvilleana</i> , Récl. ....	141
<i>Merria cancellata</i> , Gray .....	136	<i>cidaris</i> , Récl. ....	137
<i>Metopias</i> .....	89	<i>Cumingiana</i> , Récl. ....	139
<i>Metopias Typhlops</i> , Lowe .....	90	<i>Deshayesiana</i> , Récl. ....	138
<i>Microstoma</i> .....	88	<i>distans</i> , Récl. ....	140
<i>Milvago pezoporos</i> , Meyen .....	109	<i>glaberrima</i> .....	136
<i>Mimus Thenca</i> , Mol. ....	111	<i>granulosa</i> , Récl. ....	140
<i>tricaudatus</i> , D'Orb. ....	120	<i>Gueriniana</i> , Récl. ....	139
<i>Molothrus niger</i> , Gould .....	121	<i>lamellosa</i> .....	137
<i>Mora Mediterranea</i> , Risso .....	89, 91	<i>ligata</i> , Récl. ....	138
MOSCHUS JAVANICUS, Pall. ....	66	<i>margaritacea</i> , Récl. ....	137
STANLEYANUS, Gray .....	68	<i>Orbigniana</i> , Récl. ....	140
<i>Motella</i> .....	91	<i>Petitiana</i> , Récl. ....	138
<i>Mugil auratus</i> , Risso .....	86	<i>Quoyi</i> , Récl. ....	137
<i>Cephalus</i> , Cuv. & Val. ....	86	<i>rosea</i> , Récl. ....	140
<i>chelo</i> , Syn. ....	86	<i>sigaretiformis</i> , Récl. ....	141
<i>Maderensis</i> .....	86	<i>sigaretiformis</i> , Récl. ....	137
<i>Mugilidae</i> .....	86	<i>striata</i> , D'Orb. ....	137
<i>Mulinia Donaciformis</i> .....	102	<i>sulcata</i> .....	137
Murex ananas, Hinds .....	127	<i>tuberosissima</i> , Récl. ....	136
<i>Antillarum</i> , Hinds .....	126	<i>Natica</i> , genus .....	204
<i>Belcheri</i> , Hinds .....	127	<i>Natica amethystina</i> , Lam. ....	211
<i>Californicus</i> , Hinds .....	128	<i>arachnoidea</i> .....	211
<i>Capensis</i> .....	127	<i>areolata</i> , Récl. ....	204, 206
<i>cirrosus</i> , Hinds .....	128	<i>aurantia</i> , Lam. ....	211
<i>emarginatus</i> .....	128	<i>Broderipiana</i> , Récl. ....	205
<i>festivus</i> , Hinds .....	127	<i>Buriasiensis</i> , Récl. ....	212
<i>foveolatus</i> , Hinds .....	127	<i>canrena</i> , Récl. ....	207
<i>gravidus</i> , Hinds .....	128	<i>Collii</i> , Récl. ....	206
<i>hamatus</i> , Hinds .....	128	<i>cruentata</i> .....	212
<i>monoceros</i> .....	128	<i>Cumingiana</i> , Récl. ....	210
<i>Motacilla</i> , Sow. ....	126	<i>dubia</i> , Récl. ....	209
<i>Nuttali</i> .....	128	<i>Elenæ</i> , Récl. ....	205
<i>peritus</i> , Hinds .....	129	<i>euzona</i> , Récl. ....	204
<i>pinniger</i> .....	127	<i>Fanel</i> , Adans. ....	206, 207
<i>radicatus</i> , Hinds .....	128	<i>Flemingiana</i> , Récl. ....	209
<i>rosarium</i> .....	127	<i>Flemingiana</i> , Récl. ....	209
<i>Muricanthus</i> , Swains. ....	128	<i>fulgurans</i> , Récl. ....	206
<i>Muricites costatus</i> .....	167	<i>fuscata</i> .....	210
<i>Mus Coypus</i> , Mol. ....	129	<i>Gallapagosa</i> , Récl. ....	213
<i>cyanus</i> , Mol. ....	131	<i>Gambizæ</i> , Récl. ....	207
<i>decumanus</i> , Linn. ....	51	<i>Gualteriana</i> , Récl. ....	208
<i>longicaudatus</i> , Benn. ....	129	<i>margaritacea</i> , Potier .....	137
<i>longipilis</i> , Waterh. ....	129	<i>Marochiensis</i> , Lam. ....	207
<i>Taxamaca</i> .....	79	<i>mawra</i> , Lam. ....	214
<i>Teguina</i> .....	79	<i>orientalis</i> , Récl. ....	205
<i>Muscipeta Smithii</i> , Fraser .....	34	<i>Panamensis</i> , Récl. ....	208
<i>tricolor</i> , Fraser .....	4	<i>pavimentum</i> , Récl. ....	208
<i>Muscisaxicola mentalis</i> , D'Orb. ....	112	<i>picta</i> , Récl. ....	204
<i>nigra</i> , Less. ....	112	<i>Powisiana</i> , Récl. ....	210
<i>rufovertex</i> , D'Orb. ....	112	<i>Priamus</i> , Récl. ....	213
<i>Muscivora Tyrannus</i> , Gray .....	120	<i>pyriformis</i> , Récl. ....	211



	Page		Page
<i>Natica Raynoldiana</i> , Récl. ....	212	<i>Nerita Mertoniana</i> , Récl. ....	71
<i>Salangoensis</i> , Récl. ....	211	<i>Michaudiana</i> , Récl. ....	72
<i>Samarensis</i> , Récl. ....	214	<i>nebulata</i> , Récl. ....	71
<i>sebae</i> , Récl. ....	214	<i>Orbignyana</i> ....	202
<i>Simia</i> , Desh. ....	214	<i>Ovalianensis</i> , Less. ....	72
<i>straminea</i> ....	211	<i>Panayensis</i> , Récl. ....	200
<i>sulphurea</i> ....	211	<i>pennata</i> , Desm. ....	202
<i>uberina</i> , Récl. ....	210	<i>Pfeifferiana</i> , Récl. ....	72
<i>violacea</i> , Sow. ....	211	<i>Powisiana</i> , Récl. ....	71
<i>Zanzebarica</i> , Récl. ....	213	<i>Royssiana</i> , Récl. ....	72
<i>Zebra</i> ....	204	<i>Rumphii</i> , Récl. ....	200, 201, 202
<i>Navicella</i> , Lam. ....	197	<i>Sayana</i> , Récl. ....	199
<i>Navicella Cookii</i> , Récl. ....	197	<i>Siquijorensis</i> , Récl. ....	198
<i>La Perousei</i> , Récl. ....	197	<i>Spengleriana</i> , Récl. ....	201
<i>lineata</i> , Récl. ....	198	<i>(Clithon) subpunctata</i> , Récl. ....	199
<i>Nemera abbreviata</i> , Forbes ....	75	<i>Turtoni</i> , Récl. ....	71
<i>attenuata</i> , Forbes. ....	75	<i>violacea</i> , Gmel. ....	198
<i>casta</i> , Hinds ....	77	<i>virginea</i> , Lam. ....	199
<i>Chinensis</i> , Gray ....	76	<i>Neritina</i> , Lam. ....	198
<i>concinna</i> , Hinds ....	77	<i>Neritina lugubris</i> , Lam. ....	72
<i>costata</i> , Hinds ....	77	<i>piperata</i> , Sow. ....	202
<i>costellata</i> , Deshayes ....	75, 77	<i>Nothura perdicaria</i> , G. R. Gray ...	115
<i>cuspidata</i> (Oliv), Hinds. ....	76	<i>Nucula</i> ....	97
<i>cuspidata</i> ....	75, 78	<i>Nucula arctica</i> , Brod., Sow. ....	79
<i>didyma</i> , Hinds ....	78	<i>Belcheri</i> , Hinds ....	98
<i>elegans</i> , Hinds ....	76	<i>cælata</i> , Hinds ....	99
<i>Gouldiana</i> , Hinds ....	77	<i>castrens</i> , Hinds ....	98
<i>hyalina</i> , Hinds ....	76	<i>Cobboldiæ</i> ....	98
<i>hyalina</i> , Sow. ....	76	<i>crassa</i> , Hinds ....	99
<i>iridescens</i> , Hinds ....	78	<i>crispa</i> , Hinds ....	100
<i>lata</i> , Hinds ....	79	<i>Cumingii</i> , Hinds ....	97
<i>opalina</i> , Hinds ....	78	<i>declivis</i> , Hinds ....	98
<i>Philippinensis</i> , Hinds ....	78	<i>divaricata</i> , Hinds ....	97
<i>rosea</i> , Hinds ....	78	<i>excavata</i> , Hinds ....	100
<i>Singaporensis</i> , Hinds ....	77	<i>lata</i> , Hinds ....	99
<i>trigona</i> , Hinds ....	78	<i>lyrata</i> , Hinds ....	100
<i>Nectarinia flavigastra</i> , Gould. ....	104	<i>marmorea</i> , Hinds ....	98
<i>Neophron niger</i> , Less. ....	51	<i>mitralis</i> , Hinds ....	97
<i>Nerita</i> , genus, Lam. ....	198	<i>nana</i> , Hinds ....	98
<i>Nerita Afra</i> , Sow. ....	198	<i>Nicobarica</i> , Lam. ....	99
<i>Africana</i> , Récl. ....	198	<i>obliqua</i> ....	97
<i>apiata</i> , Récl. ....	72	<i>pella</i> ....	100
<i>aurantia</i> , Récl. ....	200	<i>puellata</i> , Hinds ....	100
<i>Beaniana</i> , Récl. ....	200	<i>pulchra</i> , Hinds ....	97
<i>bicolor</i> , Récl. ....	200	<i>recta</i> , Hinds ....	100
<i>Brasiliana</i> , Récl. ....	199	<i>reticulata</i> , Hinds ....	100
<i>cancellata</i> , Chemn. ....	136	<i>retusa</i> , Hinds ....	99
<i>crepidularia</i> , Lam. ....	198	<i>serotina</i> ....	99
<i>cuprina</i> , Récl. ....	72	<i>tenella</i> , Hinds ....	99
<i>(Clithon) Da Costæ</i> , Récl. ....	199	<i>tumida</i> , Hinds ....	98
<i>Donovana</i> , Récl. ....	73	<i>ventricosa</i> , Hinds ....	100
<i>dubia</i> ....	73	<i>Numenius Hudsonicus</i> , Lath. ....	117
<i>glaberrima</i> , Brown ....	136	<i>Nycticorax Americanus</i> , Bonap. ....	116
<i>Grayana</i> , Récl. ....	200	<i>cyanocepalus</i> , Mol. ....	116
<i>guttata</i> , Recl. ....	199	<i>Otodon Cumingii</i> ....	111, 129, 130
<i>Hindsii</i> , Récl. ....	201	<i>Odontophorus Guianensis</i> ....	107
<i>Jovis</i> , Récl. ....	72	<i>Opetiorhynchus nigrofumosus</i> , G. R. Gray ....	111
<i>Leachii</i> , Récl. ....	199	<i>vulgaris</i> , G. R. Gray ....	111
<i>mamma Peneris fuscata seu lutea</i> , Chemn. ....	210	<i>Ophidiidæ</i> ....	92

	Page		Page
<i>Ophidium Fierasfers</i> , Risso .....	92	<i>Pectunculus Tellinæformis</i> , Reeve ...	80
<i>Ophidium imberbe</i> , Linn. ....	92	<i>tenuicostatus</i> , Reeve .....	80
<i>Oreophilus totanirostris</i> , Jard. & Selb.	117	<i>tessellatus</i> , Reeve .....	189
<i>Orniemya Allardi</i> .....	122	<i>undulatus</i> , Lam. ....	34, 190
<i>Bonapartiae</i> .....	122	<i>zonalis</i> .....	189
<i>enifera</i> .....	122	<i>Pelecanoides Garnotii</i> , G. R. Gray ...	119
<i>Guerinii</i> .....	122	<i>Perdix Bonhami</i> , Fraser .....	70
<i>heteropogon</i> .....	122	<i>Heyi</i> , Temm. ....	70
<i>La Fresnayi</i> .....	122	<i>Peristera tympanistera</i> , Temm. ....	53
<i>microrhyncha</i> .....	122	<i>Phalacrocorax</i> , King .....	119
<i>Pauline</i> .....	122	<i>Phalacrocorax Brasiliensis</i> , Spix ...	119
<i>smaragdinocollis</i> , D'Orb. ....	122	<i>Gaimardii</i> .....	119
<i>Temminckii</i> .....	122	<i>Phalaropus Wilsonii</i> , Sab. ....	118
<i>vestita</i> .....	122	<i>Phalacobænus montanus</i> , D'Orb. ....	108
<i>Ornithichnites</i> .....	145	<i>Phasianus Colchicus</i> , Linn. ....	51
<i>Ornithichnites giganteus</i> , Hitchcock	146	<i>Philomachus Chilenis</i> , Mol. ...	116, 117
<i>ingens</i> , Hitch. ....	146	<i>ignicapillus</i> , Is. Geoff. ....	117
<i>Ortygide</i> .....	107	<i>Pholis Bufo</i> , Lowe .....	87
<i>Ortyx fasciatus</i> , Gould .....	133	<i>lævis</i> .....	87
<i>leucophrys</i> , Gould .....	132	<i>trigloides</i> , Lowe .....	87
<i>leucotis</i> , Gould .....	133	<i>Phycis Mediterraneus</i> .....	91
( <i>Odontophorus</i> ) <i>marmoratus</i> ,		PHYLLODIA .....	50
<i>Gould</i> .....	107	<i>Phyllodia Parnellii</i> , Gray .....	50
( <i>Odontophorus</i> ) <i>strophium</i> , <i>Gould</i>	134	<i>Phyllostomina</i> .....	20
<i>parvicristatus</i> , <i>Gould</i> .....	106	<i>Phytotoma rara</i> , Mol. ....	113
<i>Sonnini</i> .....	107	<i>Picus Kingii</i> , G. R. Gray .....	114
<i>Otis tarda</i> .....	144	<i>lignarius</i> , Mol. ....	114
<i>Otus palustris</i> , Gould .....	110	<i>viridis</i> , Auct. ....	51
<i>Oxyurus dorso-maculatus</i> , D'Orb. ...	112	<i>Pipra vitellina</i> , <i>Gould</i> .....	103
<i>Pachysoma</i> .....	67	<i>Platalea ajaja</i> , Linn. ....	117
<i>Pachysoma amplexicaudatum</i> , <i>Geoff.</i>	67	<i>Pleurotoma</i> , Lam. ....	31, 37, 181
<i>brevicaudatum</i> , <i>Geoff.</i> .....	67	<i>Pleurotoma abbreviata</i> , <i>Reeve</i> ....	182
<i>titthæcheilum</i> , Temm. ....	67	<i>alabaster</i> , <i>Reeve</i> .....	181
<i>Passer Jagoensis</i> , <i>Gould</i> .....	52	<i>albibalteata</i> , <i>Reeve</i> .....	182
<i>simplex</i> , Swains. ....	52	<i>annulata</i> , <i>Reeve</i> .....	33
<i>Pectunculus assimilis</i> .....	190	<i>arcuata</i> , <i>Reeve</i> .....	32
<i>aureifrons</i> , <i>Reeve</i> .....	34	<i>Babylonia</i> , var., <i>Kien.</i> ....	31
<i>bicolor</i> , <i>Reeve</i> .....	79	<i>Bertrandi</i> .....	45
<i>cancellatus</i> , <i>Reeve</i> .....	188	<i>bijubata</i> , <i>Reeve</i> .....	182
<i>Delessertii</i> , <i>Reeve</i> .....	190	<i>Boholensis</i> , <i>Reeve</i> .....	184
<i>formosus</i> , <i>Reeve</i> .....	189	<i>brevicaudata</i> , <i>Reeve</i> .....	186
<i>giganteus</i> , <i>Reeve</i> .....	33	<i>buccinoides</i> .....	168
<i>Glycimeris</i> , Lam. ....	189	<i>carbonaria</i> , <i>Reeve</i> .....	187
<i>holosericus</i> , <i>Reeve</i> .....	34	<i>catena</i> , <i>Reeve</i> .....	33
<i>inæqualis</i> .....	79	<i>cedo-nulli</i> , <i>Reeve</i> .....	185
<i>lineatus</i> , <i>Reeve</i> .....	80	<i>contracta</i> , <i>Reeve</i> .....	185
<i>lividus</i> , <i>Reeve</i> .....	190	<i>corusca</i> , <i>Reeve</i> .....	183
<i>morum</i> , <i>Reeve</i> .....	188	<i>crassilabrum</i> , <i>Reeve</i> .....	185
<i>nodosus</i> , <i>Reeve</i> .....	80	<i>cuprea</i> , <i>Reeve</i> .....	187
<i>obliquus</i> , <i>Reeve</i> .....	80	<i>Deshayesii</i> .....	33
<i>oculatus</i> , <i>Reeve</i> .....	188	<i>digitale</i> , <i>Reeve</i> .....	186
<i>pallium</i> , <i>Reeve</i> .....	80	<i>exasperata</i> , <i>Reeve</i> .....	32
<i>perdix</i> , <i>Reeve</i> .....	189	<i>eximia</i> , <i>Reeve</i> .....	181
<i>pertusus</i> , <i>Reeve</i> .....	188	<i>Garnonsii</i> , <i>Reeve</i> .....	31
<i>raripectus</i> , <i>Reeve</i> .....	34	<i>gracilentia</i> , <i>Reeve</i> .....	184
<i>sericatus</i> , <i>Reeve</i> .....	190	<i>gravis</i> , <i>Hinds</i> .....	37
<i>Siculus</i> , <i>Reeve</i> .....	189	<i>gemmata</i> , <i>Hinds</i> .....	37
<i>spadiceus</i> , <i>Reeve</i> .....	189	<i>Harfordiana</i> , <i>Reeve</i> .....	183
<i>spurcus</i> , <i>Reeve</i> .....	188	<i>hastata</i> , <i>Reeve</i> .....	187
<i>strigilatus</i> .....	190	<i>Hindsii</i> , <i>Reeve</i> .....	186

	Page		Page
<i>Pleurotoma inermis</i> , Hinds .....	37	<i>Pteropus</i> .....	68, 96
<i>lactea</i> , Reeve .....	186	<i>Pteropus Edwardsii</i> .....	67
<i>Mitraformis</i> , Kiener .....	33	<i>jubatus</i> , Esch. ....	67
<i>mystica</i> , Reeve .....	183	<i>minimus</i> , Geoff. ....	67
<i>nobilis</i> , Hinds .....	37	<i>Puffinus cinereus</i> , Steph. ....	119
<i>obesa</i> ( <i>Bech. MS.</i> ), Reeve .....	33	<i>obscurus</i> .....	70
<i>Papalis</i> , Reeve .....	33	<i>Pyrgita domestica</i> , Cuv. ....	51
<i>Perronii</i> , Reeve .....	183	<i>Jagoensis</i> , Gould .....	52
<i>pessulata</i> , Reeve .....	185	<i>simplex</i> , Swains. ....	52
<i>Philippinensis</i> , Reeve .....	184	<i>Querquedula cærulata</i> , Eyton .....	118
<i>Pica</i> , Reeve .....	181	<i>creccoides</i> , Eyton .....	118
<i>picta</i> ( <i>Bech. MS.</i> ), Reeve .....	32	<i>Raia hebetans</i> , Müll. & Henl. ....	94
<i>planilabrum</i> , Reeve .....	182	<i>lutea</i> , Fries .....	94
<i>pluteata</i> , Reeve .....	183	<i>ozyrhynchus</i> , Will. ....	94
<i>radula</i> , Hinds .....	38	<i>undulata</i> , Auct. ....	94
<i>Rissoides</i> , Reeve .....	184	<i>Raiide</i> .....	3
<i>spectabilis</i> , Reeve .....	32	<i>Rallus sanguinolentus</i> , Swains. ....	118
<i>spirata</i> .....	183	<i>Ramphastos citreolæmus</i> , Gould ..	147
<i>stolida</i> , Hinds .....	37	<i>Raniceps</i> .....	91
<i>tigrina</i> .....	182	<i>Rhinolophus</i> .....	25, 67
<i>tricotata</i> .....	186	<i>Rhinolophus bicolor</i> , Temm. ....	67, 68
<i>Tritonoides</i> , Reeve .....	182	<i>luctus</i> , Temm. ....	68
<i>unizonalis</i> .....	32	<i>ferrum-equinum</i> , Temm. ....	68
<i>varicosa</i> , Reeve .....	187	MARTINI, Fraser .....	25
<i>venusta</i> , Reeve .....	181	<i>nobilis</i> , Horsf. ....	67
<i>violacea</i> , Hinds .....	38	<i>Philippinensis</i> , Waterh. ....	68
<i>Ploceus brachypterus</i> , Swains. ....	52	<i>pygmæus</i> , Waterh. ....	20
<i>personatus</i> , Swains. ....	52	<i>Rhinopoma</i> .....	20
<i>Podiceps Chilensis</i> , Garn. ....	119	<i>Rhynchaspis maculatus</i> .....	118
<i>Kalipareus</i> , Quoy & Gaim. ....	119	<i>Rhynchea semicollaris</i> , G. R. Gray ..	118
<i>Rollandii</i> , Quoy & Gaim. ....	119	<i>Rhynchops nigra</i> , Linn. ....	119
<i>Poephagomys ater</i> , F. Cuv. ....	131	<i>orientalis</i> , Rüppell .....	53
<i>Polyborus Brasiliensis</i> , Swains. ....	108	<i>Rhynomyia lanceolata</i> , D'Orb. ....	120
<i>Pomatopus</i> .....	89	<i>Rissoa deformis</i> .....	184
<i>Pomatopus telescopus</i> .....	91	<i>Saccophorus Quachil</i> .....	79
<i>Potamomyia</i> , J. Sow. ....	59	<i>Salmonide</i> .....	43, 88
<i>Potamomyia nimboosa</i> , Hinds .....	59	<i>Sarcoramphus gryphus</i> , Auct. ....	108
<i>ocreatea</i> , Hinds .....	59	<i>Saurus</i> , Cuv. ....	89
<i>Procellaria glacialis</i> , Smith .....	119	<i>Saurus Lacerta</i> , Risso .....	88
<i>purpurea</i> , Boie .....	120	<i>Scalaria aciculina</i> , Hinds .....	125
<i>Psittacara cheroyeus</i> , Mol. ....	114	<i>creberrima</i> , Hinds .....	125
<i>leptorhynchus</i> , Vig. ....	114	<i>Dianæ</i> , Hinds .....	125
<i>Psittacus flavinuchus</i> , Gould .....	104	<i>glabrata</i> , Hinds .....	124
<i>Patachinus</i> , Vig. ....	114	<i>porrecta</i> , Hinds .....	126
<i>Pteraclis Carolinus</i> .....	83	<i>suturalis</i> , Hinds .....	125
<i>guttatus</i> .....	83	<i>vestalis</i> , Hinds .....	125
<i>oculata</i> , Cuv. & Val. ....	83	<i>vulpina</i> , Hinds .....	126
<i>Papilio</i> , Lowe .....	83	<i>Scarabus Cumingianus</i> , Pet. de la	
<i>trichopterus</i> .....	83	<i>Sauss.</i> .....	3
<i>Pterocles personatus</i> , Gould .....	15	<i>Schizodesma</i> , Gray .....	102
<i>personatus</i> , Gould .....	183	<i>Schizodon fuscus</i> , Waterb. ....	130
<i>Pteroglossus erythropygius</i> , Gould ..	15	<i>Sciurus Degus</i> , Molina .....	130
<i>erythropygius</i> , Gould .....	103	<i>Scolopax Paraguaiæ</i> , Vieill. ....	118
<i>pæcilostrernus</i> , Gould .....	147	<i>Scombride</i> .....	82, 83
<i>Pteroplatea altavela</i> , Müll. & Henl. .	94	<i>Scytalopus Magellanicus</i> , G. R. Gray	111
<i>Hirundo</i> , Lowe .....	94	<i>Seriola</i> , Cuv. & Val. ....	82
<i>maclura</i> , Müll. & Henl. ....	95	<i>Seriola bipinnatula</i> , Quoy & Gaim. ...	82
<i>micrura</i> , Müll. & Henl. ....	95	<i>gracilis</i> , Lowe .....	82
<i>Pteroptochos albicollis</i> , Kittl. ....	111	<i>Serpophaga parulus</i> , Gould .....	110
<i>megapodius</i> , Vig. ....	111	<i>Sigaretus cancellatus</i> , Lam. ....	136

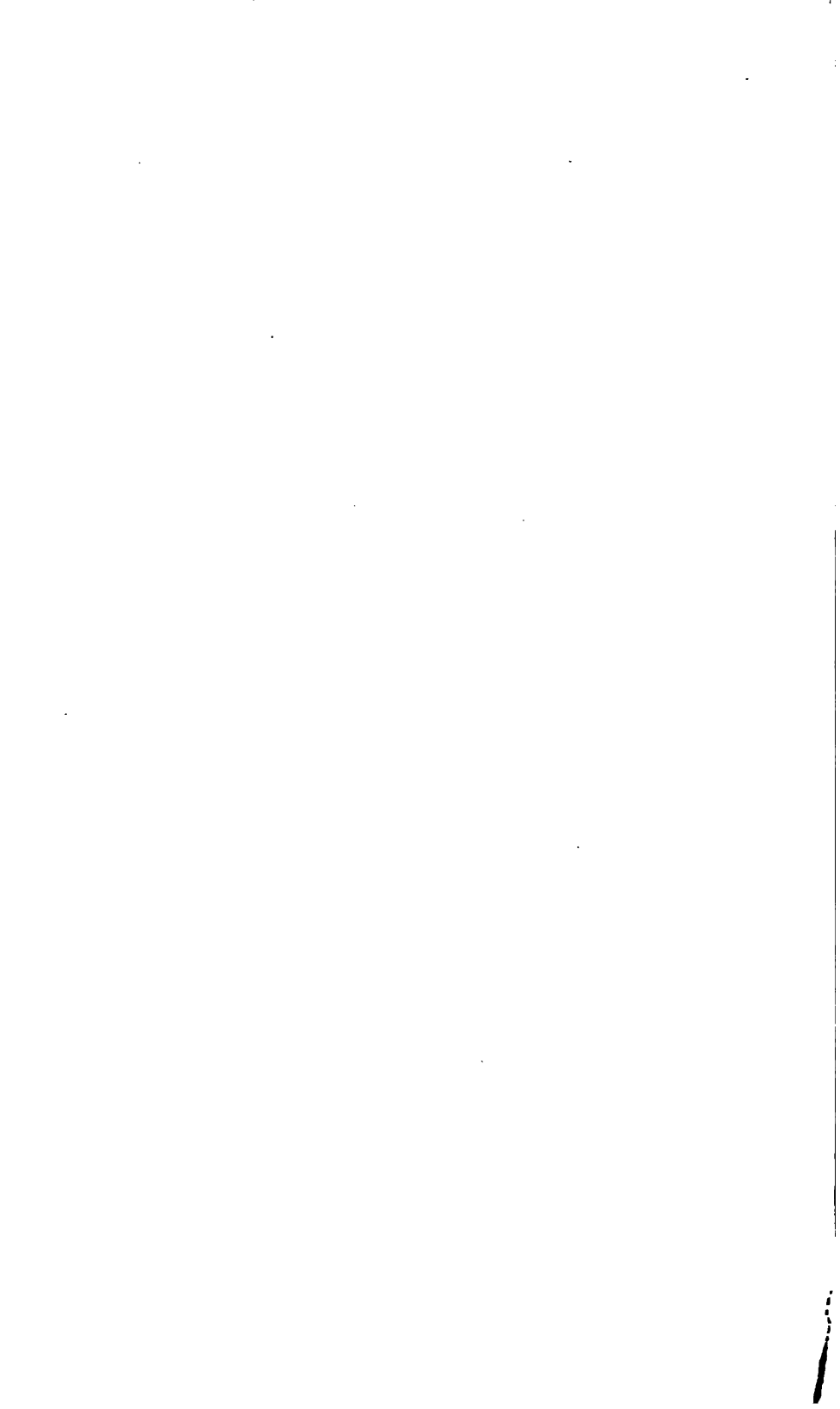
	Page		Page
<i>Sigaretus Helicoides</i> , Guillou .....	137	<i>Terebra buccinoidea</i> , Blainv. ....	168
<i>SIMIA SATYRUS</i> , Linn. ....	123	<i>cærulescens</i> , Lam. ....	161
<i>Sitta Europæa</i> , Auct. ....	122	<i>canalis</i> , Wood .....	167
<i>Solen</i> .....	101	<i>cancellata</i> , Gray, Quoy .....	165
<i>Solen acinaces</i> , Hanley .....	101	<i>carnea</i> , Perry .....	160
<i>ambiguus</i> , Lam. ....	101	<i>casta</i> , Hinds .....	156
<i>brevis</i> .....	101	<i>casta</i> , Hinds .....	162
<i>cylindraceus</i> , Hanley .....	101	<i>castanea</i> , Kiener .....	162
<i>linearis</i> , Wood .....	101	<i>cerithina</i> , Lam. ....	161
<i>Philippinarum</i> , Hanley .....	101	<i>cinerea</i> , Born .....	165
<i>scalprum</i> .....	101	<i>cingula</i> , Kiener .....	162
<i>Spinax niger</i> , Bonap. ....	93	<i>cingulifera</i> , Lam. ....	163
<i>Squalidae</i> .....	93	<i>clorata</i> , Lam. ....	161
<i>Squalus Acanthias</i> , Linn. ....	93	<i>columellaris</i> , Hinds .....	151
<i>obscurus</i> , Lesueur .....	93	<i>columellaris</i> , Hinds .....	164
<i>Spinax</i> , Linn. ....	93	<i>commaculata</i> , Gmel. ....	163
<i>ustus</i> , Dum. ....	93	<i>consors</i> , Hinds .....	150
<i>Squatrola cincta</i> , Jard. ....	118	<i>consors</i> , Hinds .....	160
<i>Urvillii</i> .....	118	<i>consersa</i> , Hinds .....	153
<i>Sternoptyx diaphana</i> , Herm. ....	85	<i>consersa</i> , Hinds .....	162
<i>Olfersii</i> , Cuv. ....	85	<i>constricta</i> , Sow. ....	166
<i>Stomias barbatus</i> , Cuv. ....	88	<i>copula</i> , Hinds .....	151
<i>Boa</i> , Risso .....	88	<i>copula</i> , Hinds .....	161
<i>Strepsilas Interpres</i> .....	118	<i>corrugata</i> , Lam. ....	163
<i>Strix perlata</i> , Licht. ....	110	<i>Cosentini</i> , Philippi .....	166
<i>Struthio Camelus</i> .....	145	<i>costata</i> , Menke .....	161
<i>Sturnella Loica</i> , Mol. ....	113	<i>costata</i> , Lea .....	167
<i>Subula maculata</i> , Sch. ....	159	<i>crenulata</i> , Linn. ....	160
<i>Sula</i> .....	120	<i>cuspidata</i> , Hinds .....	157
<i>Synallaxis ægithaloides</i> , Kittl. ....	112	<i>cuspidata</i> , Hinds .....	165
<i>pumicola</i> , Kittl. ....	112	<i>dimidiata</i> , Linn. ....	160
<i>rufogularis</i> , Gould .....	112	<i>duplicata</i> , Linn. ....	161
<i>spinicauda</i> , King .....	112	<i>Dussumieri</i> , Kiener .....	161
<i>superciliaris</i> , Fraser .....	3	<i>eburnea</i> , Hinds .....	153
<i>Taractes</i> , Lowe .....	82, 89	<i>eburnea</i> , Hinds .....	163, 165
<i>Taractes asper</i> , Lowe .....	83	<i>elata</i> , Hinds .....	156
<i>cuspidata</i> , Olivi .....	76	<i>elata</i> , Hinds .....	165
<i>Terebra</i> , Bruguière .....	149	<i>fatua</i> , Hinds .....	150
<i>Terebra acicularia</i> , Lam. ....	165	<i>fatua</i> , Hinds .....	161
<i>affinis</i> , Gray .....	161, 164	<i>felina</i> , Sow. ....	160
<i>Africana</i> , Gray .....	164	<i>fenestrata</i> , Hinds .....	153
<i>alba</i> , Gray .....	165	<i>fenestrata</i> , Hinds .....	164
<i>albida</i> , Gray .....	161	<i>flammea</i> , Lam. ....	160
<i>albula</i> , Menke .....	165	<i>flava</i> , Gray .....	165
<i>alveolata</i> , Hinds .....	151	<i>funiculata</i> , Hinds .....	153
<i>alveolata</i> , Hinds .....	162	<i>funiculata</i> , Hinds .....	163
<i>amanda</i> , Hinds .....	154	<i>fusca</i> , Perry .....	161
<i>amanda</i> , Hinds .....	163	<i>fuscata</i> , Brocchi .....	166
<i>anomala</i> , Gray .....	165	<i>fusco-maculata</i> , Sow. ....	161
<i>Argus</i> .....	160	<i>gemmulata</i> , Kiener .....	161
<i>armillata</i> , Hinds .....	154	<i>glauca</i> , Hinds .....	155
<i>armillata</i> , Hinds .....	164	<i>glauca</i> , Hinds .....	164
<i>articulata</i> , Lam. ....	166	<i>gracilis</i> , Gray .....	161
<i>aspera</i> , Hinds .....	154	<i>gracilis</i> , Lea .....	167
<i>aspera</i> , Hinds .....	164	<i>granulata</i> , Phill. ....	166
<i>Babylonia</i> , Lam. ....	163	<i>granulosa</i> , Lam. ....	168
<i>bicincta</i> , Hinds .....	150	<i>hastata</i> , Gmel. ....	162
<i>bicincta</i> , Hinds .....	164	<i>Heddingtonensis</i> , Lonsd. ....	167
<i>bifrons</i> , Hinds .....	155	<i>heterostrophæ</i> , Wood .....	167
<i>bifrons</i> , Hinds .....	164	<i>Heunahiana</i> , Sow. ....	167

	Page		Page
<i>Terebra inconstans</i> , Hinds .....	156	<i>Terebra polygyra</i> , Conrad .....	167
<i>inconstans</i> , Hinds .....	165	<i>Portlandica</i> , Sow. ....	167
<i>intertincta</i> , Hinds .....	155	<i>pretiosa</i> , Reeve .....	163
<i>intertincta</i> , Hinds .....	164	<i>pulchra</i> , Hinds .....	151
<i>inversa</i> , Nyst .....	167	<i>pulchra</i> , Hinds .....	163
<i>Knorrii</i> , Gray .....	161	<i>punctato-striata</i> , Gray .....	163
<i>laevigata</i> , Gray .....	164	<i>punctulata</i> , Sow. ....	163
<i>levis</i> , Gray .....	164	<i>pygmæa</i> , Hinds .....	158
<i>Lamarckii</i> , Kiener .....	161	<i>pygmæa</i> , Hinds .....	166
<i>lanceata</i> , Gmel. ....	165	<i>radula</i> , Hinds .....	155
<i>larvæformis</i> , Hinds .....	155	<i>radula</i> , Hinds .....	164
<i>larvæformis</i> , Hinds .....	164	<i>raphanula</i> , Lam .....	161
<i>laurina</i> , Hinds .....	152	<i>robusta</i> , Hinds .....	149
<i>laurina</i> , Hinds .....	162	<i>robusta</i> , Hinds .....	160
<i>lepidæa</i> , Hinds .....	158	<i>rudis</i> , Gray .....	163
<i>lepidæa</i> , Hinds .....	165	<i>rustica</i> , Hinds .....	158
<i>ligata</i> , Hinds .....	153	<i>rustica</i> , Hinds .....	166
<i>ligata</i> , Hinds .....	163	<i>Sandwicensis</i> .....	168
<i>lineata</i> , Sow. ....	166	<i>scabrella</i> , Lam. ....	163
<i>lineolata</i> , Sow. ....	168	<i>scalarina</i> , Lam. ....	168
<i>lingualis</i> , Hinds .....	153	<i>Senegalensis</i> , Lam. ....	161
<i>lingualis</i> , Hinds .....	163	<i>simplex</i> , Conrad .....	167
<i>luctuosa</i> , Hinds .....	157	<i>sinuosa</i> , Sow. ....	167
<i>luctuosa</i> , Hinds .....	165	<i>sinuosa</i> , Sow. ....	167
<i>maculata</i> , Linn. ....	159	<i>specillata</i> , Hinds .....	155
<i>maculata</i> , Lam. ....	159	<i>specillata</i> , Hinds .....	162
<i>melanoides</i> , Phillips .....	166	<i>spectabilis</i> , Hinds .....	150
<i>mera</i> , Hinds .....	166	<i>spectabilis</i> , Hinds .....	161
<i>mera</i> , Hinds .....	158	<i>straminea</i> , Gray .....	163
<i>micans</i> , Hinds .....	166	<i>striata</i> , Quoy .....	164
<i>micans</i> , Hinds .....	157	<i>striata</i> , Basterot .....	166
<i>monilis</i> , Quoy .....	163	<i>striata</i> , Lonsd. ....	167
<i>muscaria</i> , Lam. ....	160	<i>striatula</i> , Lam. ....	161
<i>myuros</i> , Lam. ....	163	<i>striatula</i> , Linn. ....	165
<i>Nassoides</i> , Hinds .....	158	<i>strigata</i> , Sow. ....	160
<i>Nassoides</i> , Hinds .....	166	<i>strigilata</i> , Linn. ....	165
<i>nebulosa</i> , Kiener .....	160	<i>striolata</i> , Risso .....	166
<i>nebulosa</i> , Sow. ....	162	<i>stylata</i> , Hinds .....	152
<i>nezilis</i> , Sow. ....	167	<i>stylata</i> , Hinds .....	162
<i>nimbosa</i> , Hinds .....	151	<i>subulata</i> .....	160
<i>nimbosa</i> , Hinds .....	161	<i>succinea</i> , Hinds .....	149
<i>nitida</i> , Hinds .....	152	<i>succinea</i> , Hinds .....	160
<i>nitida</i> , Hinds .....	162	<i>tæniolata</i> , Quoy .....	163
<i>nubeculata</i> , Sow. ....	162	<i>Tahitensis</i> , Gray .....	168
<i>obesa</i> , Hinds .....	158	<i>tenera</i> , Hinds .....	158
<i>obesa</i> , Hinds .....	166	<i>tenera</i> , Hinds .....	165
<i>oculata</i> , Lam. ....	161	<i>tessellata</i> , Gray .....	163
<i>ornata</i> , Gray .....	160	<i>textilis</i> , Hinds .....	156
<i>penicillata</i> , Hinds .....	157	<i>textilis</i> , Hinds .....	165
<i>penicillata</i> , Hinds .....	165	<i>tigrina</i> , Gmel. ....	160
<i>pertusa</i> , Born .....	162	<i>tricolor</i> , Sow. ....	163
<i>pertusa</i> , Kiener .....	163	<i>triseriata</i> , Gray .....	164
<i>Petitii</i> , Kiener .....	163	<i>tuberculosa</i> , Hinds .....	154
<i>picta</i> , Hinds .....	156	<i>tuberculosa</i> , Hinds .....	164
<i>picta</i> , Hinds .....	164	<i>tuberosa</i> , Hinds .....	152
<i>plicaria</i> , Basterot .....	166	<i>tuberosa</i> , Hinds .....	166
<i>plicata</i> , Gray .....	163	<i>undata</i> , Deffr. ....	162
<i>plicatula</i> , Brocchi .....	166	<i>undulata</i> , Gray .....	161, 164
<i>plumbea</i> , Quoy .....	162	<i>varicosa</i> , Hinds .....	152
<i>polita</i> , Gray .....	168	<i>varicosa</i> , Hinds .....	162
		<i>variegata</i> , Gray .....	164

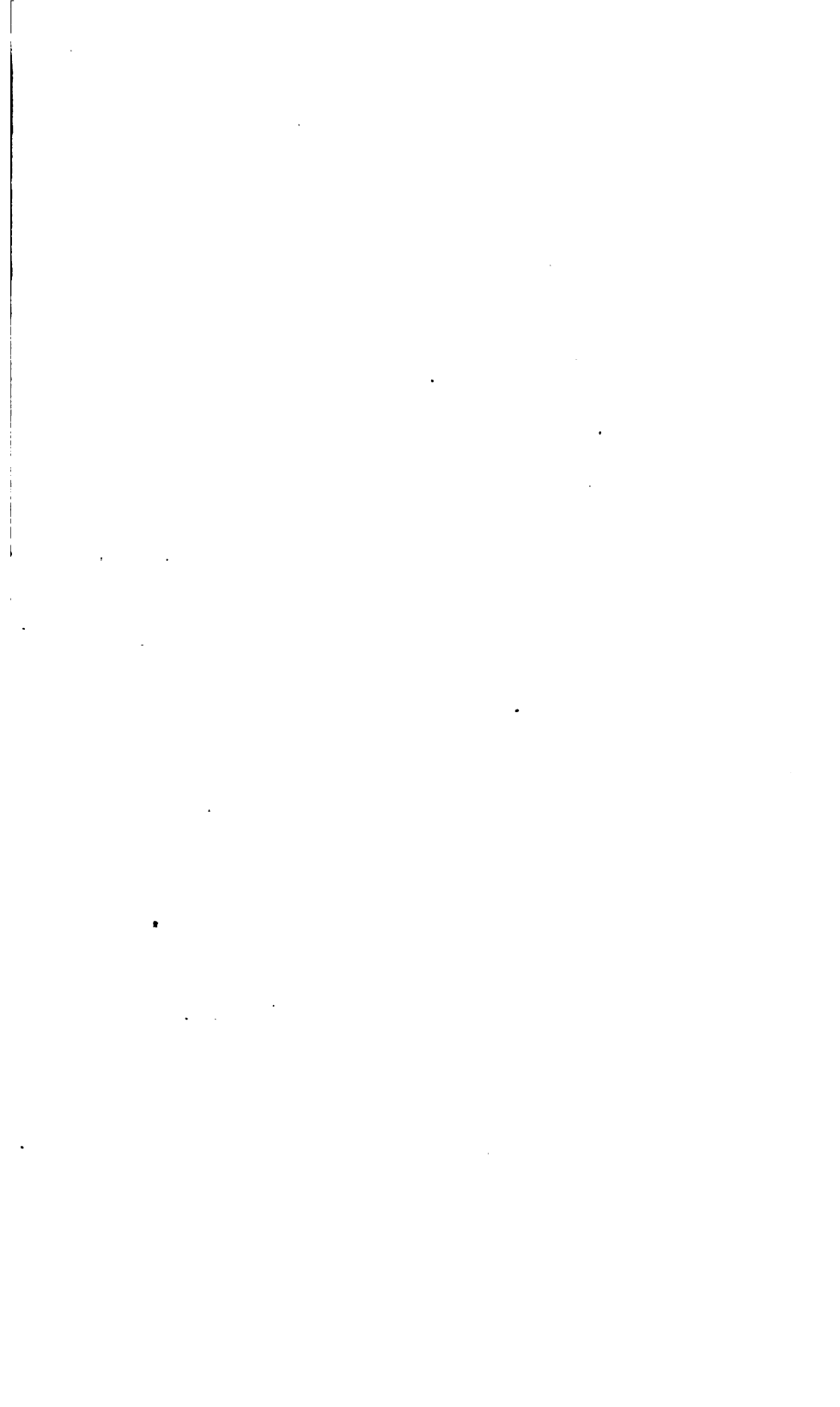
	Page		Page
<i>Terebra venosa, Hinds</i> .....	157	<i>Trochilus flavicaudatus</i> .....	122
<i>venosa, Hinds</i> .....	165	<i>galeritus, Mol.</i> .....	115
<i>venusta, Lea</i> .....	154, 167	<i>gigas, Vieill.</i> .....	114
<i>vetusta, Phill.</i> .....	166	<i>Kingii, Vig.</i> .....	115
<i>violascens, Hinds</i> .....	154	<i>Millerii, Lodd.</i> .....	114
<i>violascens, Hinds</i> .....	168	<i>parvirostris</i> .....	122
<i>vittata, Phill.</i> .....	166	<i>sephanoides, Less.</i> .....	115
<i>Vulcani, Brongniart</i> .....	167	<i>Tyrianthinus</i> .....	122
<i>Zebra, Kiener</i> .....	160	<i>uropygialis</i> .....	122
<i>Tetragonurus</i> .....	82	<i>Troglodytes Magellanicus, Gould</i> ...	111
<i>Tetraogallus Nigelli</i> .....	70	<i>Trygon altavella</i> .....	94
<i>Theristicus melanops, Wagl.</i> .....	117	<i>Turdus Falklandicus, Quoy &amp; Gaim.</i>	111
<i>THYLACINUS</i> .....	148	<i>fuscater, D'Orb.</i> .....	120
<i>Thylacinus Harrisii, Temm.</i> .....	148	<i>Typhis, Montfort.</i> .....	18
<i>Tinnunculus Sparverius</i> .....	109	<i>Typhis arcuatus, Hinds</i> .....	19
<i>Tinochorus D'Orbignyianus</i> .....	115	<i>nitens, Hinds</i> .....	19
<i>Eschscholtzii</i> .....	116	<i>quadratus, Hinds.</i> .....	18
<i>Torpedo hebetans</i> .....	94	<i>Sowerbii</i> .....	18
<i>marmorata</i> .....	94	<i>Uppucerthia dumetoria, Is. Geoff.</i> ...	111
<i>nobiliana, Buon.</i> .....	94	<i>Vanellus Cayanus, Auct.</i> .....	117
<i>panthera, Ehr.</i> .....	94	<i>Velutina cancellata, Quoy &amp; Gaim.</i> ...	137
<i>picta, Lowe</i> .....	93	<i>sigaretiformis, Potier</i> .....	137
<i>Trachichthys</i> .....	85	<i>Velutinae</i> .....	137
<i>Treron crassirostris, Fraser</i> .....	35	<i>Vidua chrysonota, Swains.</i> .....	52
<i>Trichotropis, Brod., Sow.</i> .....	17	<i>erythrorhynchus, Swains.</i> .....	52
<i>bicarinata</i> .....	17	<i>Voluta reticulata, Reeve</i> .....	144
<i>cancellata, Hinds</i> .....	17	<i>Vomer</i> .....	86
<i>flavida, Hinds</i> .....	18	<i>Xema (Chroicocephalus) cirrocephalum, G. R. Gray</i> .....	119
<i>inermis, Hinds</i> .....	18	<i>Xolmis pyrope, G. R. Gray</i> .....	111
<i>Triphoris collaris, Hinds</i> .....	23	<i>Zenaida aurita, Temm.</i> .....	115
<i>Deshayesii, Hinds</i> .....	22	<i>Zenidæ</i> .....	83, 85
<i>pagodus, Hinds</i> .....	22	<i>Zeus Childreni, Bowditch</i> .....	85
<i>Trochilus aurogaster</i> .....	122	<i>roseus, Lowe</i> .....	85
<i>coruscus</i> .....	122	<i>Zonotrichia mutatoria, G. R. Gray</i> ...	113
<i>cyanopterus</i> .....	122		
<i>Derbianus</i> .....	122		

END OF PART XI.









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